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AN OUTLINE OF ENGLISH PHONETICS

BY

DANIEL JONES, M. A.
READER IN PHONETICS IN THE UNIVERSITY OF LONDON

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 *œu* is to make the student practise a diphthong of the type *œu* (with the front vowel *œ*), although *œ* 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 Coleman; 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 site — 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 (i).

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 \( e \) or the sign \( e \) 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” \( e \) and “cardinal” \( e \). After much hesitation the sign \( e \) 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 \( e \) (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 extra-ordinary admits of a number of pronunciations. The form generally aimed at by foreigners is *ekstrə:dnəri*, 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'trə:dnəri*, 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'trə:dnəri*, 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 exist, 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

<table>
<thead>
<tr>
<th>CONSONANTS</th>
<th>Labial</th>
<th>Dental</th>
<th>Palatal</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi-labial</td>
<td>Labio-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plosive</td>
<td>b</td>
<td>t, d</td>
<td>k, g</td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>(l)</td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolled</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>s, th,</td>
<td>s, z,</td>
<td>f, v</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semi-vowel</td>
<td>w</td>
<td>j</td>
<td>(w)</td>
<td>h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VOWELS</th>
<th>Front</th>
<th>Mixed</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>i:</td>
<td>u:</td>
<td>u:</td>
</tr>
<tr>
<td>Half-close</td>
<td>a:</td>
<td>o:</td>
<td>a:</td>
</tr>
<tr>
<td>Half-open</td>
<td>e:</td>
<td>e:</td>
<td>e:</td>
</tr>
<tr>
<td>Open</td>
<td>a:</td>
<td>a:</td>
<td>a:</td>
</tr>
</tbody>
</table>

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 ( ).

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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.

<table>
<thead>
<tr>
<th>Phonetic Symbol</th>
<th>Ordinary Spelling of Key word</th>
<th>Phonetic Transcription of Key word</th>
<th>Phonetic Symbol</th>
<th>Ordinary Spelling of Key word</th>
<th>Phonetic Transcription of Key word</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>father</td>
<td>fa:ðə</td>
<td>m</td>
<td>make</td>
<td>meik</td>
</tr>
<tr>
<td>a</td>
<td>fly</td>
<td>flaɪ</td>
<td>n</td>
<td>no</td>
<td>nou</td>
</tr>
<tr>
<td>æ</td>
<td>cab</td>
<td>kæb</td>
<td>y</td>
<td>long</td>
<td>lɔŋ</td>
</tr>
<tr>
<td>æ</td>
<td>up</td>
<td>æp</td>
<td>o</td>
<td>November</td>
<td>noʊvəmbe (see § 451)</td>
</tr>
<tr>
<td>b</td>
<td>boat</td>
<td>bout</td>
<td>ou</td>
<td>go</td>
<td>gʌʊ</td>
</tr>
<tr>
<td>d</td>
<td>day</td>
<td>dei</td>
<td>ø</td>
<td>saw</td>
<td>sɔː</td>
</tr>
<tr>
<td>d</td>
<td>get</td>
<td>get</td>
<td>ø</td>
<td>hot</td>
<td>hɔt</td>
</tr>
<tr>
<td>e</td>
<td>dei</td>
<td></td>
<td>p</td>
<td>pay</td>
<td>pɛi</td>
</tr>
<tr>
<td>e</td>
<td>fair</td>
<td>fə:ɹə</td>
<td>r</td>
<td>red</td>
<td>rɛd (see §§ 255—258)</td>
</tr>
<tr>
<td>æ:</td>
<td>bird</td>
<td>bɛrd</td>
<td>s</td>
<td>sun</td>
<td>sʌn</td>
</tr>
<tr>
<td>ø</td>
<td>above, china</td>
<td>ə'bæv,tʃaine</td>
<td>s</td>
<td>show</td>
<td>sout</td>
</tr>
<tr>
<td>f</td>
<td>foot</td>
<td>fut</td>
<td>t</td>
<td>tea</td>
<td>tɛː</td>
</tr>
<tr>
<td>g</td>
<td>go</td>
<td>gou</td>
<td>θ</td>
<td>thin</td>
<td>θɛin</td>
</tr>
<tr>
<td>h</td>
<td>hard</td>
<td>hard</td>
<td>u</td>
<td>food</td>
<td>fud</td>
</tr>
<tr>
<td>i</td>
<td>see</td>
<td>sɪi</td>
<td>u:</td>
<td>good</td>
<td>gud</td>
</tr>
<tr>
<td>i</td>
<td>it</td>
<td>it</td>
<td>v</td>
<td>vain</td>
<td>vɛin</td>
</tr>
<tr>
<td>j</td>
<td>yes</td>
<td>jes</td>
<td>w</td>
<td>wine</td>
<td>wain</td>
</tr>
<tr>
<td>k</td>
<td>cold</td>
<td>kould</td>
<td>z</td>
<td>seal</td>
<td>zil</td>
</tr>
<tr>
<td>l</td>
<td>leaf, feel</td>
<td>lɪʃ, fɪl</td>
<td>ʒ</td>
<td>measure</td>
<td>ˈmɛʒə</td>
</tr>
</tbody>
</table>

: 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.
## CONTENTS

<table>
<thead>
<tr>
<th>Preface</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of English Sounds</td>
<td>VII</td>
</tr>
<tr>
<td>List of English Sounds, with Key words</td>
<td>VIII</td>
</tr>
<tr>
<td>List of Illustrations</td>
<td>X</td>
</tr>
</tbody>
</table>

### Chapter

#### I. Phonetics and Phonetic Transcription
- Styles of Phonetic Transcription | 1

#### II. Standard Pronunciation | 2

#### III. The Organs of Speech | 3

#### IV. Experimental Methods | 5

#### V. Breath and Voice | 7

#### VI. Classification of Sounds
- Classification of Consonants | 9
- Classification of Vowels | 11

#### VII. Syllables | 15

#### VIII. The English Plosive Consonants
- Theory of Plosive Consonants | 19

#### IX. The English Liquid Consonants
- Nasal Consonants | 24
- The l sounds | 28
- The r sounds | 32

#### X. The Fricative Consonants
- Initial and final Voiced Fricatives | 40

#### XI. Semi-vowels | 21

#### XII. The Front Vowels | 47

#### XIII. The Back Vowels | 48

#### XIV. The Mixed Vowels | 50

#### XV. Nasalization | 51

#### XVI. Cacuminal Sounds | 54

#### XVII. Assimilation | 60

#### XVIII. Length
- Effect of Rhythm on Length | 68
- Length of Consonants | 68
- Mistakes in Length made by Foreigners | 78
- General Note on the Representation of Length in Phonetic Transcription | 81

#### XIX. Stress
- Word-stress (simple words) | 82
- Words with Double Stress | 83
- Influence of Rhythm | 83
- Word-stress (compound words) | 84
- Sentence-stress | 84
Appendix A. Rules for converting a "broad" Transcription of English into a "narrower" one ................................................. 183
Appendix B. Lists of Words stressed according to Rules, in cases where the
Exceptions are numerous ......................................... 184
Appendix C. Ear-training Exercises .................................. 187
Appendix D. Script Forms of Phonetic Signs ......................... 189
Appendix E. Lists of Books, etc., recommended for the Study of English
Pronunciation .......................................................... 191
Appendix F. Examination Questions .................................. 194

Index of Sounds .......................................................... 196
Index of Subjects .......................................................... 200
Index of Words Transcribed .......................................... 203

### LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Organs of Speech.</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>The Mouth.</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>The Artificial Palate</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>The Larynx as seen through the laryngoscope.</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>The Laryngoscope.</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Instrument to illustrate Breath and Voice</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Zünd-Burguet's Voice Indicator.</td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>Instrument to show the effect of a resonance chamber in modifying quality of tone</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>The Vowel Triangle.</td>
<td>16</td>
</tr>
<tr>
<td>10</td>
<td>Tongue positions of the vowels i, u and u</td>
<td>16</td>
</tr>
<tr>
<td>11</td>
<td>The Classification of Vowels</td>
<td>17</td>
</tr>
<tr>
<td>12</td>
<td>Atkinson's Mouth Measurer in position.</td>
<td>18</td>
</tr>
<tr>
<td>13</td>
<td>Atkinson's Mouth Measurer in position.</td>
<td>18</td>
</tr>
<tr>
<td>14</td>
<td>Zünd-Burguet's Quadrant Indicator.</td>
<td>19</td>
</tr>
<tr>
<td>15</td>
<td>Tongue position of English t</td>
<td>26</td>
</tr>
<tr>
<td>16</td>
<td>Tongue position of French t (variety with tip of tongue against upper teeth)</td>
<td>26</td>
</tr>
<tr>
<td>17</td>
<td>Tongue position of French t (variety with tip of tongue against lower teeth)</td>
<td>26</td>
</tr>
<tr>
<td>18</td>
<td>Palatogram of the English word tee.</td>
<td>27</td>
</tr>
<tr>
<td>19</td>
<td>Palatogram of the French word taut.</td>
<td>27</td>
</tr>
<tr>
<td>20</td>
<td>Palatogram of the English word tea.</td>
<td>27</td>
</tr>
<tr>
<td>21</td>
<td>Palatogram of the French word type.</td>
<td>27</td>
</tr>
<tr>
<td>22</td>
<td>Tongue position of k</td>
<td>30</td>
</tr>
<tr>
<td>23</td>
<td>Tongue position of c</td>
<td>30</td>
</tr>
<tr>
<td>24</td>
<td>Palatogram of the English word key.</td>
<td>30</td>
</tr>
<tr>
<td>25</td>
<td>Tongue position of tf</td>
<td>39</td>
</tr>
<tr>
<td>26</td>
<td>Tongue' position of English n</td>
<td>40</td>
</tr>
<tr>
<td>27</td>
<td>Tongue position of ñ</td>
<td>42</td>
</tr>
<tr>
<td>28</td>
<td>Tongue position of French p</td>
<td>42</td>
</tr>
<tr>
<td>29</td>
<td>Palatogram of the French p in the group apa</td>
<td>42</td>
</tr>
<tr>
<td>30</td>
<td>Tongue position of [l₁]</td>
<td>44</td>
</tr>
<tr>
<td>31</td>
<td>Tongue position of [l₂]</td>
<td>44</td>
</tr>
<tr>
<td>32</td>
<td>Tongue position of [l₃]</td>
<td>44</td>
</tr>
<tr>
<td>33</td>
<td>Palatogram of [l₁] with the tip of the tongue placed as in English</td>
<td>45</td>
</tr>
<tr>
<td>34</td>
<td>Palatogram of [l₃] with the tip of the tongue placed as in English</td>
<td>45</td>
</tr>
<tr>
<td>35</td>
<td>Palatogram of [l₃] with the tip of the tongue placed as in English</td>
<td>45</td>
</tr>
<tr>
<td>36</td>
<td>Palatogram of [l₃] (l with resonance of English short a) with the tip of the tongue placed as in English</td>
<td>45</td>
</tr>
<tr>
<td>37</td>
<td>Palatogram of [l₃] with the tip of the tongue placed as in English</td>
<td>45</td>
</tr>
<tr>
<td>38</td>
<td>Palatogram of [l₃] with the tip of the tongue placed as in English</td>
<td>45</td>
</tr>
<tr>
<td>39</td>
<td>Tongue positions of rolled r</td>
<td>48</td>
</tr>
</tbody>
</table>
94. The vowel A pronounced with exaggerated distinctness .... 84
95. The e in the English diphthong ou as pronounced in normal speech .................. 86
96. The u in the English diphthong ou as pronounced in normal speech .................. 86
97. The o in the English diphthong ou pronounced with exaggerated distinctness ........ 86
98. The u in the English diphthong ou pronounced with exaggerated distinctness ........ 86
99. Tongue position of u: .................................. 88
100. The English long, tense u: as pronounced in normal speech ......................... 88
101. The English long, tense u: pronounced with exaggerated distinctness ............. 88
102. The English short, lax u, as pronounced in normal speech .......................... 90
103. The English short, lax u, pronounced with exaggerated distinctness .............. 90
104. The English long ø: (in bird) as pronounced in normal speech ...................... 92
105. The English long ø: (in bird) pronounced with exaggerated distinctness .......... 92
106. The English “neutral” vowel ø as pronounced in normal speech .................... 94
107. The English “neutral” vowel ø pronounced with exaggerated distinctness .......... 94
108. Tongue position of cacuminal bright .................................. 101
109. Tongue position of a pronounced with cacuminal modification .................... 101
110. Tongue positions of t, j and f ................................... 103
111. A Tambour .................................................. 103
112. A Kymograph ................................................. 109
113. An Embouchure .............................................. 170
114. A Nasal Olive ................................................. 170
115. Exploratory Bulbs ............................................. 171
116. A Larynx Recorder ........................................... 171
117. Mouth-tracings of phu, phu, pa, ha, ba .................................. 172
118. Mouth-tracings of perhaps .................................... 172
119. Mouth and Larynx tracings of bed-time, egg-cup ......................................... 173
120. Mouth and Larynx tracings of file-day, boot-jack, football ............................. 173
121. Mouth and Larynx tracings of coat-tail, book-case, Whitchurch ........................ 177
122. Mouth-tracing of play, pronounced by the author ........................................ 174
123. Mouth and Larynx tracings of play, pronounced by a Flemish-speaking Belgian .. 174
124. Mouth and Larynx tracings of eits, eite, eitj, eitj ......................................... 176
125. Mouth-tracings of do:, dzø:, dzɑ:, dzo: .................................. 176
126. Mouth-tracings of tight, church, tsetse, traitress ....................................... 177
127. Nose, Mouth and Larynx tracings of maiden ............................................. 178
128. Nose, Mouth and Larynx tracings of mutton ............................................. 178
129. Mouth-tracings of bee, bead, bean, beat, bid, bin, bit .................................. 179
130. Nose, Mouth and Larynx tracings of Good morning .................................... 180
131. Intonation-curve of Good morning .................................................. 181
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.

J ohn e s, English Phonetics
compare the a's in father, fall, any, fat, watch; the i's in wind (noun), machine, bird; the u's in rule, put, hut; compare also the o's in stove, move, love; the ea's in meat, head, great, bear, etc.

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

8. Discrepancies between pronunciation and ordinary spelling are not confined to the English language. In French -le has different values in ville and fille; o has different values in grosse and gose; portions is pronounced in two different ways according as it is a noun or a verb; on the other hand the sound o is spelt differently in the words mot, tot, beau, chevaux. In German ch has different values in rauchem and Fruuchen; u has different values in FuB and NuB.

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.
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, but

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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 *paːt* (§ 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 ā (viz. a nasalized a, §§ 96, 420), while in Lausanne it often tends towards ą (a nasalized a, § 404). In North Germany initial *u* as in *Wein* is generally pronounced v, but in Middle and South Germany it is more often pronounced υ (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 *ei* (*naim* or *neim* instead of the normal *neim*). In popular Parisian the French *brun* is often pronounced *brɛ̃* instead of the standard *brœ̃* (the vowel being a nasalized *ɛ̃*, § 393). In Berlin it is regarded by many as a vulgarism to pronounce *der* (which in stage pronunciation is *dɛr*, *dɛr*, or *dœr* according to circumstances) as *dɛn*. Many Germans regard as a vulgarism *jaˈjeːbm*, which may often be observed instead of the stage pronunciation *gəˈgeːbon* (*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 *sɔːft* by educated men in the South, but ladies more often *say* *soft*; of the two forms of *which*, *hwitʃ* and *witʃ*, 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 û, when unstressed (e.g. in bread and butter ‘bredn’bata), 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, Hamburg. 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, 10.80; Mouth, nose, etc., with removable tongue and larynx, 30.—.
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 \textit{blade}. The extremity of the tongue is called the \textit{tip}, and is included in the blade. The definitions of "back" and "front" are particularly important.

34. The \textit{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 \textit{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).

\textbf{CHAPTER IV}

\textbf{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
Chapter IV. Experimental Methods

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 (4 A fig. 3).

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

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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 in (§ 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
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 $b, v$. 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 $v$.

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.

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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 $p$, $f$, 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 "$w$-sound", the "bird-sound", etc., instead of simply pronouncing the sounds $\phi$, $\varepsilon$; 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

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

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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 *e, 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 *a* immediately followed by a voiced *a*. 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 \( \alpha \) pronounced in the normal manner can be heard at a much greater distance than the sound \( \beta \) or the sound \( \gamma \) 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 \( \textit{ju:d} \), wait \( \textit{wejt} \)) 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 m̩), and to deduce from l the corresponding breathed consonant l̩. This is done by practising sequences such as vfvf..., zszs..., until the method of passing sequences such as m̩m̩m̩, until the method of passing from voice to breath is clearly felt, and then applying the same method to m, l, etc., thus obtaining m̩m̩m̩m̩m̩l̩l̩l̩ 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 mp̩a, n̩to, instead of bu, da. A true voiced b may be acquired by practising the exercise p̩mp̩mp̩p̩... pronounced without opening the lips, followed by the exercise b̩mb̩b̩m̩... 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 b̩b̩b̩... without separating the lips. (Take care that this exercise does not degenerate into m̩m̩m̩m̩m̩.) Voice d, g may similarly be acquired by practising t̩t̩t̩..., d̩nd̩d̩..., k̩k̩k̩k̩... g̩g̩g̩g̩... g̩g̩g̩... 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.

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1 This sound exists in French in such words as pœple pœpl when final; it is also the sound of Welsh ñ, e.g. Llangollen ñan'ɡəlen.
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, f, 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, y.

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

VI. Glottal or laryngeal sounds, viz. sounds articulated in the glottis:
     example ? (§ 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,
    § 284): example l. These sounds are sometimes called divided conson-
    ants 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:

<table>
<thead>
<tr>
<th>Labial</th>
<th>Dental</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blabial</td>
<td>Labio-</td>
<td>Post-dental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dental</td>
<td>(alveolar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plosive</td>
<td>pd</td>
<td>t d</td>
<td>k g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td>l t</td>
<td></td>
<td>(k)</td>
<td></td>
</tr>
<tr>
<td>Rolled</td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f v</td>
<td>θ ð</td>
<td>sz, fj, j</td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>Semi-vowel</td>
<td>w</td>
<td>j</td>
<td>(w)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**CLASSIFICATION OF VOCABLES**

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 cæcuminal 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). It consists of a cylindrical resonator $A$, 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

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1 Price £ 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 $\alpha$ 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".

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 $\alpha$ 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 $\alpha$ 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 ø (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 u (the first element of the diphthong in fair).

82. Fig. 11, which is a 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 Measurer¹, 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

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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.
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 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

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\(^1\) 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, e, may be demonstrated.

*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. 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

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

\*2
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 but). 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 lips.

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 æ. 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 subject.

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

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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 [l], [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 8.
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 ~ placed over the symbol of the sound which is nasalized. An example of a nasalized vowel is the French û, as in cent, sang, sû. 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 away..., ëëë... are pronounced, the outer end of the pencil is seen to rise for the sounds ù, ë and to fall for the sounds a, ë. 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).

<table>
<thead>
<tr>
<th>Front</th>
<th>Mixed</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close . . .</td>
<td>i:</td>
<td>u:</td>
</tr>
<tr>
<td>Half-close</td>
<td>e</td>
<td>o</td>
</tr>
<tr>
<td>Half-open</td>
<td>æ</td>
<td>ø</td>
</tr>
<tr>
<td>Open . . .</td>
<td>a</td>
<td>u</td>
</tr>
</tbody>
</table>

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 'letœ (letter) the e and the œ are separated
by t, a sound less sonorous than either e or o; the e and o therefore belong to different syllables. Similarly in the group London (London) the a and o 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 ground (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:n, little 'litl, button 'batn'). 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). The former may be observed especially when the two vowels in question are identical or very similar, as in the word bee-eater 'bi:itə, or in the phrase we saw all wi:'so:'l, or in the French word créer kree. 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 e (§ 57). Germans are apt to mark the syllable division in such words as create kri:'eit, cooperate kou'opəreit by inserting the sound Ё (§ 160ff.). This pronunciation is incorrect. In kou'opəreit 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, οο as in fair fəo. əʊ as əʊy.

1 Some foreigners are apt to replace the syllabic ə, as, in such words by groups such as æl or æl, ən, etc., thus, 'pi:pl, 'litəl, 'batn. Such pronunciations must be avoided, especially after t and d, as in little 'litəl, middle 'middəl. 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 [kré].
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 \( \text{\textdagger} \) if desired. In the English diphthongs ai, au, ou, œ the less sonorous vowels are the i, u, u, œ respectively. This may be indicated phonetically, if desired, by writing ai, au, ou, œ.

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 œœ (as in fair fœ). The sounds œ and œ when isolated and pronounced with equal force of the breath have approximately equal sonority, but in the English diphthong œœ the first element is pronounced with greater force and therefore has greater sonority than the second. Again the English sound i is normally less sonorous than the sound œ; nevertheless in the English diphthong io (as in dear dio) the i is pronounced, in normal pronunciation, with so much more force than the œ that its sonority becomes greater than that of the œ.

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; one a careless way of pronouncing the word why (properly wai or hwai) is also a true triphthong.

108. The groups aie, auo (as in fire fai, power pau) are not true triphthongs. i and u are less sonorous than a and œ (§ 57), and therefore the a and œ belong in each case to different syllables (§ 99). The i and u of these groups are, however, often lowered towards é and œ (§§ 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 ae or the single long vowel a: (§§ 414, 415). It is, however, sometimes convenient to call the groups aie, auo 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. lus lus ("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 diœ: (which is practically identical with diœ:). 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 \textit{breathed bi-labial plosive consonant}.

111. \( p \) is the usual sound of the letter \( p \); example \textit{pipe} \( paip \). \( P \) is silent in the initial groups \( pt \), \( pn \), generally also in initial \( ps \): examples \textit{ptarmigan} \( 'ta:mlg\^a:n \), \textit{pneumatic} \( nju'm\^a\tik \), \textit{psalm} \( sa:m \); also in the single words \textit{raspberry} \( 'ra:zbri \) and \textit{cupboard} \( 'kab\^ad \). Note the exceptionally spelt word \textit{hiccough} \( 'hik\^ap \).

112. In English when \( p \) is followed by a stressed vowel as in \textit{pardon} \( 'pa:dn \), 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 \textit{Spartan} \( 'sp\:tu:n \) as when the syllable commences with the \( p \). Also the aspiration is not so strong when an extremely short vowel follows, as in \textit{picked} \( pik\t \). 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 \textit{upper} \( 'a\p\theta \), 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.)

118. Scandinavians and some Germans are apt to aspirate initial \( p \) far too strongly, pronouncing \( 'pa:dn \) as \( 'phu:dn \) 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 \( b' \)). Scandinavians also have a tendency to replace \( p \) by \( b \) when it occurs at the beginning of an unstressed syllable as in \textit{upper} \( 'a\p\theta \), \textit{apple} \( 'epl \), and after \( s \) as in \textit{spend} \( 'sp\:nd \). They should practise aspirating the \( p \) in these cases.

\[ ^1 \text{Some persons pronounce} \ ps \text{in words beginning with} \textit{psych-}; \text{thus} \textit{psychology} \text{is} \textit{saik\'olad\'zi} \text{or} \textit{psiak\'olad\'zi}. \]

\[ ^2 \text{is the sign of devocalization, so that} \textit{b} \text{denotes “unvoiced} \textit{b”}. \]
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 ‘phu:dn, etc.: they are never likely to exaggerate the h like the Scandinavians and Germans.

115. Words for practice: peel pl:l, pill pil, pail pel, pencil ’penul, pair pao, patch pætʃ, pie pai, power ’paʊə, pass pa:s, pocket ’pækit, paw pə: (= pour, pore), public ’pʌblɪk, post pəʊst, pool pu:l, pull pul, purse pə:s; capable ’keiəbl, happy ’hæpl, pepper ’pɛpə, people ’piːpl; lip lip, map mæp, top tɒp, help help; spin spin, spend spend, spot spot, 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 lem, comb koum1; also before t in a few words such as debt det, doubt daut, subtle ’sætl.

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 b 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 bl, bid bid, bay bei, bed hed, bare bare, bad bæd, buy bai, bough bau, bark bæk, box boks, bought bɔt, bud had, boat hɒt, boot bɔ:t, bull bul, burn bɔ:n; October ək’tɔubə, robin ’robi:n, bubble ’bæbl; web web, bulb bulb, hubbub ’hæbəb, tribe traɪb.

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 kuːm (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 raft (but compare waited 'weitid').\(^1\) Note also the exceptionally spelt words eighth eitθ, thyme taim, Thames temz, Thomas 'təməs, Mathilda ma'tildə. t is silent in words ending in -stle, -sten: examples castle 'ka:sl, thistle 'θisl, fasten 'fa:sn, hasten 'heisn, listen 'lisn.\(^2\)

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 hwɔt\(^3\) (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 [tu]. Figs. 20 and 21 show palatograms of the English tea ti: and the French type [tip].\(^4\)

125. In English when t is followed by a vowel in a stressed syllable, as in taken 'teikn, it is “aspirated” in the same way

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

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

\(^3\) Italic letters in phonetic transcriptions denote optional sounds; thus hwɔt means that the word may be pronounced either hwɔt or wɔt.

\(^4\) 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 \( \text{thekn} \) (or \( \text{the:kn} \), § 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 \( d \)). These latter must be careful to pronounce the English \( t \) with considerable force of the breath. Scandinavians have a tendency to replace \( t \) by \( d \) when it occurs at the beginning of an unstressed syllable, as in \( \text{matter 'maet\(\acute{e}\), bottle 'bot\(\acute{e}\)l} \); also after \( s \), as in \( \text{storm st\(\acute{a}\):\(\acute{e}\)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 \( \text{thekn} \), etc.

128. Words for practice: \( \text{tea ti, tin 't\(\acute{e}\), tear (of the eye) t\(\acute{e}\)o, take teik, tell tel, tear (to rend, a rent) t\(\acute{e}\)o, attack t\(\acute{a}\)\(\acute{e}\)k, time t\(\acute{a}\)m, town t\(\acute{a}\)nn, task t\(\acute{a}\)sk, top to\(\acute{a}\), talk t\(\acute{a}\)k, tumble t\(\acute{a}\)mb\(\acute{l}\)l, toast t\(\acute{a}\)ust, two tu, took tuk, turn t\(\acute{a}\):\(\acute{e}\); writing r\(\acute{a}\)\(\acute{m}\)it\(\acute{\i}\)\(\acute{g}\), water w\(\acute{a}\):\(\acute{e}\)\(\acute{\i}\), native n\(\acute{e}\)\(\acute{t}\)\(\acute{i}\)\(\acute{e}\)\(\acute{v}\), theatre \(\theta\)\(\acute{e}\)\(\acute{t}\)\(\acute{o}\), constitute k\(\acute{a}\)n\(\acute{s}\)t\(\acute{i}\)\(\acute{t}\)\(\acute{j}\)\(\acute{u}\):\(\acute{t}\), potato p\(\acute{e}\)\(\acute{t}\)\(\acute{e}\)\(\acute{t}\)\(\acute{o}\)\(\acute{t}\)\(\acute{o}\); print print, profit \(\prime\) pr\(\acute{e}\)f\(\acute{t}\) (\(=\) prophet), doubt d\(\acute{a}\)\(\acute{u}\)t, treat tr\(\acute{t}\):\(\acute{i}\)\(\acute{t}\).

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

\( tf \)

130. The sound \( t \) occurs frequently as the first element of the consonantal group \( tf \) (for \( f \) see § 308). Examples \( \text{church t\(\acute{a}\)\(\acute{e}\):tf, match m\(\acute{a}\)\(\acute{e}\):f, picture p\(\acute{a}\)\(\acute{t}\):f\(\acute{\i}\), question k\(\acute{w}\)\(\acute{e}\)\(\acute{s}\)\(\acute{t}\)\(\acute{\j}\)\(\acute{u}\), natural n\(\acute{a}\)\(\acute{t}\)\(\acute{f}\)\(\acute{r}\)\(\acute{\j}\)\(\acute{\j}\).

131. The sound here represented by \( tf \) varies to some extent with

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1 Most words ending in unstressed -ture are pronounced with -t\(\acute{e}\)f\(\acute{a}\) in Southern English. Examples \( \text{furniture 'fainitf\(\acute{a}\), nature 'neitf\(\acute{a}\). Exceptions are aperture 'ap\(\acute{a}\)\(\acute{t}\)\(\acute{j}\)\(\acute{u}\), overture 'ou\(\acute{v}\)\(\acute{a}\)\(\acute{t}\)\(\acute{j}\)\(\acute{u}\).
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. tj 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 tʃɪ:p, chin tʃɪ:n, chain tʃeɪ:n, check tʃɛ:k, chap tʃɛ:p, child tʃaɪld, charm tʃɑ:m, chop tʃɛp, chalk tʃɑ:k, chum tʃɑ:m, choke tʃəuk, choose tʃuːz, church tʃɛːtʃ; each iːtʃ, ditch dɪtʃ, H eɪtʃ, sketch skɛtʃ, match mætʃ, couch kɑʊtʃ, arch aːtʃ, Scotch skɛtʃ, porch pəːtʃ, much mætʃ, broach, brooch bɹəʊtʃ.

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 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 dɪd. 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 sɪːzd, begged bɛgd.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.

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1 When the verb ends in d (or in t) the termination is pronounced -Id: examples added ˈædɪd, fitted ˈfɪdɪd. When the verb ends with a breathed consonant (other than t) the termination is pronounced t (§ 129).

Note that the termination -ed in adjectives is practically always -Id. Hence a difference in pronunciation is made between aged (participle) ˈɛldId and aged (adjective) ˈɛldɪd, blessed (participle) ˈbΛst and blessed (adjective) ˈbΛslɪd, etc. Similarly the adverbs formed from participles take the pronunciation -IdI, whatever the participle may be; compare implied ɪmplɪd, implying ɪmplɪˈlɪdɪd, unforeigned ˈʌnˌfeɪnd, unforeignedly ˈʌnˌfeɪndlɪ, marked ˈmɑːkt, markedly ˈmɑːktlɪ, composed ˈkɒmpəzd, composedly ˈkɒmpəˌlɪdɪd.
139. Spaniards and Portuguese people are apt to reduce d to a weak form of the corresponding fricative ȷ (§ 288), especially when intervocalic, as in ladder 'lædə. Danes have a similar tendency when the sound is preceded by a long vowel or a diphthong, as in trader treide.

140. Words for practice: deal di:1, did did, dear diə, date dei, debt det, dare dəə, dash dəʃ, dine dain, down dənən, dark duk, dog dag, door dər, dust dast, dome doum, doom du:m; hiding 'haidiŋ, louder 'lauə, garden 'ɡarden, middle 'mɪdl; lead (to conduct) li:d, lead (metal) led, hard ha:d, load loud, wood wud.

141. As regards the variety of d known as “inverted” d (phonetic symbol ȷ) see §§ 513, 514.

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 ɡ before e, i and y; examples jump dʒamp, jaw dʒə, jet dʒet, gem dʒem, giant dʒaiənt, page peidʒ; pigeon 'pldʒən, religion ri'lidʒən; dʒ has this sound in edge edʒ, judgment 'dʒudʒmənt, etc. Note also the miscellaneous words grandeur'ɡrændʒə, soldier 'souldʒə, Greenwich 'ɡrɪnɪdʒ, Norwich 'nɔridʒ, sandwich 'sændʒədʒ.

143. The sound dʒ is subject to variations similar to those of tf (§ 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.


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 'druːtɪwɪtʃ. 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 'sænldʒ.
3 The proper name Job is dʒəub.
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: king \( \text{ki}n \), cat \( \text{kæt} \), coat \( \text{kaut} \), cut \( \text{kut} \). \( ch \) is pronounced \( k \) in some words, e.g. character \( \text{ˈkærɪkə} \), chemist \( \text{ˈkimɪst} \) or \( \text{ˈkəmɪst} \), Christmas \( \text{ˈkrɪsməs} \), ache \( \text{ˈeɪk} \). \( Qu \) is generally pronounced \( kw \) (e.g. queen \( \text{kwiːn} \), quarter \( \text{ˈkwɔːtə} \)), but there are a few words in which it is pronounced \( k \) (e.g. conquer \( \text{ˈkɒŋkər} \), liquor \( \text{ˈlɪkər} \), antique \( \text{ˈæntɪk} \)). \( X \) is generally pronounced \( ks \) (e.g. box \( \text{ˈbɒks} \)); 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 \( \text{ki} \).

A palatogram of this word is shown in fig. 24.

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 \( \text{kəs} \). 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 \( \text{ˈkɪndəm} \), 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 \( \text{ˈkʰɪndəm} \). 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 \( ɟ \) (phonetic symbol \( ɟ \)). 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 \( ɟ \) when the sound occurs at the

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1 Less commonly \( \text{ˈkærəktə} \).
2 Rarely \( \text{ˈkrɪsməs} \).
beginning of an unstressed syllable, as in speaker 'spi:kə, knuckle 'nakl; also when preceded by s as in school sku:l. They should prac-
tise 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 'khigdam, etc.

158. Words for practice: key ki:, kill kil, cave keiv, kettle 'ketl, care keə, cat kæt, kind kaind, cow kan, cart kart, collar 'kələ, course kəs, cut kat, cold kould, cool ku:l, cushion 'kəfən, curl ko:l; acre 'eikə, cooking 'kukiŋ, rocky 'rəki; leak li:k, cake keik, pack pæk, duke dju:k.

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 geim, good gud, gum gam, green grən, big big). The sound g is also used in some words spelt with ge and gi, for instance, get get, give giv, girl ga:l, finger ‘fɪŋə. The x in the prefix ex- is generally pronounced gəz when immediately followed by a stressed or semi-stressed vowel, except in words beginning with exc-: examples exact ig'zəkt, examine ig zəmən, examination igzəmi'neiʃən, exhaust ig'zə:st, exhibit ig'zibit (but except ik'sept, excite ik'sait); compare exhibition eksə'bijn, exercise eksəsaiz 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 ʡ) when a front vowel follows, as in gay gei.

1 Also pronounced gdəl, especially by ladies; giəl and geəl may also be heard.
2 The principal words in which g before e or i is pronounced g are gear gle, geege gi:s, get get, gibberish 'gibərəf, gibbons 'gibən, giddy 'gɪdi, gift gift, gig gɨg, giggle 'ɡɪɡl, gidə gidəl, gill (of a fish) γil (gill, liquid measure, in dʒi:l), gimlet 'ɡɪmli:t, gimp gɪmp, begin bi:ɡən, girdə γə:dəl, girl γə:l, girth γəθ, give giv, gizzard 'ɡɪzdə, anger 'eɡə, conger 'kəɡə, eager 'ləɡə, finger 'fɪŋə, hunger 'hʌŋə, longer 'ləŋə, longest 'ləŋəst, (fish)-monger -mənɡə, stronger 'strəɡə, strongest 'strəŋɡəst, tiger 'teɪɡə, younger 'jæɡə, youngest 'jæŋɡist; all words ending with -ger-, -ging, e.g. dagger 'deɡə, digging 'dɪɡɪŋ, also those names Gertrude 'ɡərtrud, Gibbon (s) 'ɡɪbən(s), Gibbs gibz, Gibson gibzn, Gilbe 'gilbi, Gilchrist 'gilkrist, Gillespie gi'espi, Gillow 'ɡiləu, Gilpin 'ɡɪlpən, Girtən 'ɡətn, Gissing 'ɡɪsəŋ and a number of less common names. Gill in "Jack and Gill" is dʒi:l, otherwise the proper name Gill is gil; Gifford is 'ɡɪfəd or ˈdʒɪfəd (the former being the more frequent), Gilson is 'dʒi:lsən or 'gilzn (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 \( \\(^{\text{g}} \) \) 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 \( g \)), especially when intervocalic as in dagger 'daeg\( a \). Danes and some Germans have a similar tendency, especially when the preceding vowel is long, as in cargo 'ka:go\( u \).

159. Words for practice: geese gi:s, give giv, gear gi\( e \), gate geit, guess ges, gas gæs, guide gaid, gown gæn, guard gæd, got gæt, gauge ga:z, gum gam, goat gæt, goose gu:s, good gæd, girl go:l; eager 'ig\( æ \), tiger 'taig\( æ \), organ 'o:gen, sugar fæg; big big, egg eg, log log, mug mag.

160. In forming the sound \( \hat{\theta} \) 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 \( \hat{\theta} \) 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 \( \hat{\text{Ah}}\hat{\text{Ah}} \). A weakened form of the consonant \( \hat{\theta} \) occurs in the pronunciation of many languages, but the sound is not much used in standard English.\(^2\) 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 'absolu:tli \( \text{fæ}l \)) is spoken with great emphasis, it would often become \( \text{absolu:tli} \). The sound \( \hat{\theta} \) 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 \( \hat{\theta} \) at the beginning of all words which ought to begin with vowels. Thus instead of pronouncing it was all our own fault as itwæ'za:laun'roun'fælt they are apt to say something like itwæs'\( \theta \)l\( \theta \)u'\( \theta \)n'fælt. Sometimes they even insert the sound in the middle of a word, saying, for instance, \( \text{wæ}\hat{\text{æ}}\text{z} \) (or more pro-

\(^{1}\) t at the termination of a syllable is replaced by \( \hat{\theta} \) in many English dialects. Thus in London dialect mutton, fortnight, butter are commonly pronounced ma'\( n \), 'fo:'mailt, 'ba'\( e \).
bably we:ek'as) instead of wə'raez, kri'yeit (or more probably kri'eyt) instead of kri'eyt.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 'za: lauo 'roun 'fo: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:l_auar·'oun 'fo: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 'farə'wei, anywhere else 'eniweə'rels', the ends of the earth di'endəzədʒi'əθ, to eat an apple tu'i:te'nepl, all over again 'ə:louvərə'gein, not at all 'nəto'tə:l, to live on an island tə'livanənailənd, put on an overcoat 'putənə'nou-vəkənt.

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 he'rain (or ha'rain) with Verein fer'ain (or fer'ain).

2 Or 'eniweə'rels.

Jones, English Phonetics
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 b, thus pb. When we pronounce a voiced plosive, e.g. b by itself, it is generally followed by a short vowel, which may be represented by , thus b.

171. When a voiced plosive consonant, e.g. b is followed by a vowel, as in the group bu:, 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 pe: , tard ta: , cas ka (see §§ 114, 127, 152); examples of the second are the sounds p, d, g, 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 pʰɑrt, pʰɑ: ; praise is more accurately pʰreiz. 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 ap, yet get, look luk, as aph, geth, 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 a'baut), 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 bu, 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 b̩, d̩, g̩.

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 b̩l̩b, more accurately b̩l̩b[h].

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 b̩, d̩, g̩, without inconvenience, being very similar in acoustic effect to the sounds b, d, g, previously described. Thus bulb is pronounced by some speakers b̩l̩b.

183. In French, final voiced plosives are generally completed by
the addition of a weak neutral vowel *a*, *Elbe*, for instance, being pronounced *elb*. French people should be careful not to make this final *a* 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 ækt'tu*: 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 'ætet'aim*, *red deer 'red'dia*, the first *t* and *d* are not exploded; in fact, the only difference between the *tt*, *dd* here and the *t*, *d* in *satire 'sætaio*, *red ear 'red'io*, *reader 'redio*, 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 'læmppoust*, *bookcase 'bukkels*.

186. In *apt æpt*, *ebbed 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 'inkpot*, *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 'ætet'dei* only differs from the *d* in *muddy 'madi* in having a longer stop, the first part of which is breathed. In *'ætet'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 'skraep-buk*, *black gown 'blak'gau*.

189. The group *dt* in *bedtime 'bedtaim*, only differs from the *t* in *better 'beta*, in having a longer stop, the first part of which is voiced. In *'bedtaim*, *'ætet'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*. 
nants incorrectly, by inserting a or o between the consonants. The mistake is particularly objectionable in the groups kt, gd. Foreigners usually pronounce act as ækt, begged as begd. 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 lkt, cooked kukt, worked wækt, fogged fægd, tugged tægd, exactly ɪgəktli, expectation ekspektəijn, big dog ˈbigdæg.

FAUCAL PLOSION

192. In groups consisting of a plosive immediately followed by a nasal, e.g. the group tn in mutton ˈm tn, 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 matn (or matn or even matn), tɑpʰmoust, etc., instead of matn, tɑpmoust, etc.

194. Those who have difficulty may acquire the correct pronunciation by practising (i) pmn ... and bmnm ... without opening the lips, (ii) nn ... and dndn ... without moving the tip of the tongue, (iii) kyky ... and ggyg ... without moving the back of the tongue.

195. Additional examples for practice: shopman ˈʃɔpmən, written ritn, certain ˈsɔtn, sudden ˈsʌdn, hidden ˈhɪdn, bacon ˈbeɪkə (alternative form of ˈbeɪkən), oatmeal ˈɔutmi:l, sharpness ˈʃɑpnis.

LATERAL PLOSION

196. In the groups tl, dl, as in little ˈlɪtl, middle ˈmɪdl, 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 ˈlɪtal, ˈmɪdal). The correct pronunciation of the tl in little may be acquired by practising the exercises tltltl ..., dlldldl ... 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.

* Also often pronounced ɪgˈzæktl.*
197. Words for practice: kettle 'ketl, rattle 'rætl, bottle 'bætl, atlas 'ætlæs, rightly 'raitli, at last 'æt'læst, middle 'míd, saddle 'sædl, muddle 'mædl, bad luck 'bædl'æk.

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 bu. It is however possible to perform the separation of the lips more slowly; the effect is then almost that of bæu (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 dà 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 dâu.

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 tsoi, and down (standard daun) sometimes has a marked resemblance to dzoun.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 f, ʒ, i.e. with

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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 ð (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 ʃ or ʒ is distinctly audible.

206. As it is thus possible to regard certain forms of the English ʃ or ʒ as single affricative sounds, some writers have urged the desirability of representing the sounds phonetically by single symbols. 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 ʃʃ, ʒʒ.

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 ʃʃ occurs before other consonants, it is not treated as the other plosives would be under similar circumstances. Thus in which child 'ňwitʃ'tʃaild the first ʃ has its usual explosion, but in what time 'ňwat'təlm, black coat 'blæk'kəut, stop playing 'stəp'pleiŋ, 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 ʃʃ is not identical with lengthened ʃʃ².

(iii) The sound ʃʃ has in many words, e.g. picture 'pikʃə³, orchard 'ɔːrʃəd, developed from earlier lj, which cannot be regarded as otherwise than a group of two sounds.

(iv) If lj 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 iːts seems to be formed in a manner exactly analogous to the formation of the lj in each iːlj. Again, the correct pronunciation of r in such a word as træp træp may be acquired by Germans and other foreigners by trying to pronounce chap ʃʃəp with a very wide open mouth (see § 264).

(v) The alternation in pronunciation in words like French (frentʃ or frenʃ) is readily explained on the supposition that lj is double. This alternation is exactly parallel to the alternation between nts and ns in words like since sənts (pronounced by many sINTs).

¹ There are even some who appear to consider that all varieties of the English lj and ʒʒ are single sounds. The symbols lj, ʒʒ are suggested for use by those who insist on regarding the sounds as single.

² Lengthened lj is practically indistinguishable from lj.

³ Still pronounced with lj in Scotland and by some in England.
CHAPTER IX
THE ENGLISH LIQUID CONSONANTS

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

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 ˈmædm. M is silent in initial mn-, e.g. mnemonic ˈmɪˈmɒnɪk.

212. The corresponding breathed consonant (phonetic symbol m) 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 ˈprɪzm, rhythm ˈrɪθm.2

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).

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

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

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1 Some writers include semi-vowels under the heading “liquid”
2 Also pronounced ˈrɪθm.
lower teeth) This produces an unnatural effect to English ears, especially when the n is final as in own oun (compare the French onne [ɔ̃n]). 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 'anjen, some French speakers have a tendency to make the two sounds coalesce and become a single palatal nasal consonant (phonetic symbol j, see fig. 28); the word onion then becomes 'anjen (or more probably e'jan, see § 445). The two sounds n, j in such words should be kept quite distinct.

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

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 pond, 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 pond, sun, 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 nié, name neim, nct net, gnat nat, knife naif, now nau, nasty nu:sti, not nat, nor no: (= gnaw), nut nat, no nou, nurse na:s, new njuː; lean li:n, thin òin, pain pein, ten ten, ran ræn, dine dain, gown gaun, barn bæn, on on, corn kɔ:n, gun gan, own ou:n, soon su:n, learn lɛn; wind wind, end end, hand hænd, find fænd, ground grund, command kæ'mund, pond pond, dawned do:nd, fu:n fænd, owned oun'd, wound (noun) wʊnd.

222. In pronouncing the sound y 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

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1 The sound n is the French "n mouillé". Compare the English onion 'anjən with the French oignon which is more usually [ɔ̃ˈpɔ̃] (though some French people say [ɔ̃ˈnjɔ̃]).

2 Compare the corresponding French word which is pronounced [ipɔ̃ˈnœːs].
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. **ŋ** is the sound of final *ng*, as in *king kɪŋ*, and of *n* before letters representing the sounds *k* and *ŋ*, as in *ink ɪŋk*, *finger tɪŋg*. Further examples of the sound *ŋ* are *song sɔn*, *singer ˈsiŋə*, *anchor ˈæŋkə*, *congress ˈkɒŋgres*, *younger ˈjʌŋgə*, *handkerchief ˈhæŋ kɒtʃɪf*.

![Fig. 27. Tongue position of ŋ.](image1)

![Fig. 28. Tongue position of French ɲ.](image2)

224. In regard to the pronunciation of the group of letters *ng* when medial, note that (i) **ŋ** alone is used in words formed from verbs by the addition of the suffixes -er and -ing, *e.g.* *singer ˈsiŋə*, *hanging ˈhæŋɡɪŋ*; (ii) the *n* of the prefix con- when followed by the sounds *k* or *ŋ*, is pronounced **ŋ** when the following syllable is quite unstressed, but *n* (with most speakers) when the following syllable has stress (primary or secondary); thus, *congress ˈkɒŋgres*, *congregation ˈkɒŋɡriˈgeɪʃn* have **ŋ**, while *concur ˈkɒnˈkɜːr*, *congratulation ˈkɒŋɡrætjuˈleɪʃn* have *n*; (iii) the prefixes *en-, in-, un-* are never pronounced with **ŋ** in standard speech; thus *engage inˈgeɪdʒ*, *increase (s.) ˈɪŋkriːs*, *ungrateful ˈʌŋɡreɪtfl* all have *n*.

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

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

227. **ɲ** is the standard French “*n mouillé*”, as in *montagne mɔ̃tɑ̃*. French people have to remember that in the English **ŋ** the tongue is very much retracted from the position it occupies in pronouncing the French ɲ. It is often useful to practise the sound **ŋ** with the mouth very wide open.¹

228. Some Germans have a tendency to replace final **ŋ** by the group ɲk, thus confusing, for instance, *sing sɪŋ* and *sink sɪŋk*. This

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¹ The mouth may be kept open if necessary by means of a large cork, 1½ inches wide, placed between the front teeth.
defect may be cured by pronouncing the \textit{y} in such a word as \textit{sing} very long. Note that the pronunciation of \textit{nothing} as \textit{na\theta ink} instead of \textit{na\theta ig} is regarded in England as a vulgarism.

229. Words for practice: \textit{bring bring}, \textit{sang sang}, \textit{long long}, \textit{rung rung} ray; \textit{longing long}, \textit{singer sing}; \textit{longest longest}, \textit{finger figure}.

THE 1 SOUNDS

230. There are two varieties of 1-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” 1 and the “dark” 1 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 \textsc{voiced post-dental (or alveolar) lateral} consonants. In order to give a complete definition of any particular variety of 1-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 1, 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 1) and [\textit{l}] (the dark 1). See also §§ 235, 236.


233. Many foreigners articulate their 1-sounds with the tip or blade of the tongue against the teeth, as in the case of \textit{t}, \textit{d}, and \textit{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 1-sounds. Variations in the quality of 1-sounds are due chiefly to the

\textsuperscript{1} Narrow transcription ['litl].

\textsuperscript{2} Also \textit{kwə:m}.

\textsuperscript{3} \textit{Houban} is now sometimes heard from speakers of standard English, and this pronunciation seems to be gaining ground.

\textsuperscript{4} But \textit{salve} in the sense of “to save a ship” is \textit{sælv}. \textit{Value} is \textit{vælv}.
position of the main part of the tongue (see § 235, also footnote on p. 45).

234. 1-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 1-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 part is free to take up any position, and in particular, it may take up any given vowel position. The 1-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 1-sounds having the resonance of all the principal vowels, i, e, a, o, u, ə, etc. These varieties of 1 may be represented, when necessary by the notation 1ᵢ, 1ₑ, 1ₐ, 1₀, 1ᵢ, 1ₑ, etc.¹

236. Figs. 30, 31 and 32, show the approximate positions of the tongue in pronouncing 1ᵢ, 1ₑ and 1₀ with the tip of the tongue against the teeth-ridge. Similar diagrams may be drawn to show the formation of 1ᵢ, 1ₑ, 1₀ 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 1 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 1 pronounced with the tip of the tongue placed further forward as in French.

238. The difference between "clear" varieties of 1 and "dark"

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¹ It is often convenient in oral work to refer to these sounds as "1 with i resonance", "1 with u resonance", etc.
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 helo*; 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" I, which is used finally and before consonants, generally has the resonance of a back vowel approaching u. The English "clear" I, which is used before vowels, generally has the resonance of a front vowel approaching i.1

240. Most foreigners use a clear I in English in all cases, instead of using a dark I 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 I [I*] 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 [I*] first, by pressing the tip of the tongue firmly against the upper teeth and trying to pronounce simultaneously the vowel ø. When [I*] is obtained, the quality of the sound has then to be gradually modified until the correct [I*] is arrived at. It should be remarked, however, that the sound [I*] should only be used as an exercise and should not be used instead of [I*] in speaking.3 The Portuguese have a tendency to use [I*] 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, ø, u. With a little practice they are generally able to produce readily the various varieties of I, viz: [I*], [I*], [I*], [I*], and can therefore in particular pronounce the [I*] of standard English.

243. The easiest words for practising the dark I are those in which the sound is syllabic (§ 101) and not preceded by t or d (§ 196), e.g. people 'piːpl, table 'teɪbl, knuckle 'nʌkl, struggle 'strægl; the most difficult words for most foreigners are those in which the preceding vowel is ø: or ou, e.g. all øːl, old ould.

244. Words for practice: double 'dæbl, noble 'nəʊbl, possible 'pɒsəbl.

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 ø or ø. When the dark I is preceded by ø or ø, its resonance tends towards these vowels; and when the clear I is followed by ø or ø, it tends towards a "neutral" I with the resonance of ø.

2 The reason for saying "between the teeth" is that many foreigners try to obtain the peculiar resonance of the English I by curling back or "inverting" (§ 518) 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 I is 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 [I*] is often heard in Cockney instead of [I*].

4 Or 'pəʊbl.
struggle 'strægl, eagle 'i:gl, angle 'ængl, vessel 'vesl, partial 'pə:fl, little 'lɪtl, settle 'setl, middle 'midl, candle 'kændl; feel fi:l, fill fil, fail feil, fell fel, shall fæl (also pronounced fəl, fl, see § 497), file fail, foul faul, snarl ska:l, doll dəl, fall fə:l, dull dal, fool fəul, fool fu:1, full ful, furl fə:l; field fi:ld, milk milk, mails meilz, health helθ, child tfaild, owls aulz, scald ska:ld, bulk bəlk, cold kəuld, ruled ru:ld, pulpit 'pulpit.

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

*246. The differences between the English [l] as in coal koul and the foreign [l] as in the German wohl [vɔ: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 [l] is pronounced the pointer moves considerably, but when the English [l] 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 l) in words like people, buckle, pronouncing them pi:pl, bək], instead of [pl:pl, 'balk].

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], [r], [f], [R] and [R].

250. The letter r is pronounced as a consonant (in non-dialectal English) only when a vowel sound follows, as in red red, arrive aˈraiv, very 'veri, for instance foˈrɪnstəns. Foreigners should note particularly that no r-sound is ever heard finally or before a consonant in non-dialectal English: thus, fear fɛər, fair fɛər, four fɔr, err are pronounced fər, fər, fər, fər; (←fur), er: respectively. Similarly fierce, scarce, farm, cord, first, fours, erred, are pronounced, fɪəs, ska:s, fɔrm, kɔ:d, fɔːst, fɔːz, 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 māche mɔʃ.

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 *oʊˈpɛərəvˌbʊts*. Similarly *your* by itself is pronounced *jɔː*, *your book* is pronounced *jɔːˈbʊk*, but *your own* is pronounced *jɔːˈroun*; similarly *our* by itself is *aʊə*, but *our own* is *aʊəˈroun*; *far* by itself is *fəː*, but *far away* is *fərəˈweɪ*; other by itself is *ʌə*, but the other end is *dɪˈʌərənd*.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* *dɪˈɛmpərəʊrˈdʒəːmən*, a roar of laughter *oʊˈrəʊləftə*, nearer and nearer *niərənˈnɪərə*, there are at least four of them *dɛərətˈliːstfəːrəvʊm*; (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 hiˈoupnədəˈdɔːndˈwɔːktən*.

253. Cases may also be found occasionally which do not seem to admit of any satisfactory explanation. Thus very many speakers say *mərənˈməːr* for *mərənˈməːr* (*more and more*), *biˈfɒərtʃɑːtʃˈlɛйт* for *biˈfɒərtʃɑːtʃˈlɛйт* (*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-

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

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

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1 Less commonly *juː*, *jə* or *jəː*.
2 Or *aʊəˈroun* or *əˈroun* (§ 415).
3 Note the various possible pronunciations of *for him* in it's very good for him, when the *him* is unstressed; they are *fəːhɪm*, *fælɪm*, *fɔːrɪm*, *fɒrɪm*, *fɔːrɪm* (of these *fɔːrɪm* is perhaps the best for foreigners to use). *Perhaps* is *pəˈhæps* or *prəps*; either form may be used in any position; *pəˈhæps* is fairly common parenthetically (as in *you know, perhaps... juːˈnəʊ-pəˈhæps*...), and *prəps* is more usual in other cases (e.g. *perhaps we shall 'prəpswɪt(ː)ˈfeɪl*).
Tilt Sounds 49

tic symbol [\textipa{i}]), 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 \textipa{driː}, Henry \textipa{'henri}), and extremely common in other cases.

257. Though the sound [\textipa{i}] 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 [\textipa{r}]) is used by many Southern English speakers between two vowels, as in arrive \textipa{ərəiv}, period \textipa{ˌpiərid}, but this pronunciation is not essential; the use of [\textipa{i}] is equally correct.

259. Figs. 41 and 42 are palatograms of the semi-rolled r [\textipa{r}] and the fricative r [\textipa{i}] 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 [\textipa{r}]). 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 [\textipa{h}]), fig. 44. The sounds [\textipa{r}] and [\textipa{h}] give no palatogram.

262. The use of [\textipa{r}] or [\textipa{h}] 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 \textipa{pərt, bɜːrd}, instead of \textipa{pət, bɔːd}.

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

Jones, English Phonetics
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 [ʃ]. Jaw dʒə, jug dʒə pronounced with the cork between the teeth become almost identical with draw drə, drug drə; similarly chain tʃeɪn pronounced in this way becomes practically train tɹeɪn. 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 [ʃ] 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 toʊ'dəː...toʊ'dəː...toʊ'dəː... with very long əs and very short òs, 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 ['tɹuː'tɹuː'tɹuː...]. When the semi-rolled [ɾ] 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 ri:d, race ri:s, read (past) red (= red), rare reə, rash ræʃ, right rait, round rəʊnd, raft rəʊft, wrong rəʊŋ, roar roː (= raw), run ran, rope rəʊp, rule ru:l, room rum2; rarity rəʊrəti, retreat rɪ'triːt, retrograde 'rɛtrogreɪd3, 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

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1 Less commonly roə. 2 Less commonly ruːm. 3 Or 'retrogreɪd.
practising words like *hark* /hɑ:k/, *curse* /kɔːv/, 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* /ˈsɛntə/, *acre* /ˈelkə/.

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* /fɑːr/, *faithful* /ˈfeɪθfl/, *philosophy* /ˌfɪləˈsəfi/. *Gh* is pronounced *f* in the following common words, *enough* /ɪnˈɑːf/, *rough* /rɑːf/, *tough* /tɑːf/, *cough* /kɒːf/, *trough* /traːf/. *laugh* /laːf/, *draught* /draːft/; also in the less common words *cough* /tsɑːf/, *slough* (in the sense of the “skin of a snake”) /slɒf/. Note the pronunciation of *lieutenant* /ˈlɪfˌtɛnt/.^3*

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

^1 Also pronounced *kɔf, tɔf*.
^2 But *slough* meaning a “bog” is *sλaŋ*.
^3 Also pronounced *lɛfˈtɛnt*. 4*
276. The same fault is occasionally heard from Germans, especially when the sound is preceded by a consonant, e.g. in useful jufself.

277. Words for practice: feed fl:d, fit fit, fear fəə, fail feil, fence fən, fair fə (= fare), fat faːt, fine fain, found faund, farm fam, fond fond, force fə:s, fun fan, fold fould, food fu:d, foot fut, fir fir: (= fur); safe seif, loaf louf, half ha: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 v) (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 v is particularly strong when the sound occurs in the neighbourhood of the sound w, as in equivalent i'kwivalont.

281. Words for practice: veal vi:l, vicar 'vika, vain vein (= vein), vest vest, various 'vearios, van ven, vine vain, vow vau, vase va:z, volley 'voli, vault vɔ:lt, vulgar 'valga, vote vout, verse və:s, vivacity vai'vəsiti1; give giv, glove glAV, prove pru:v, wives waivz; very well 'veriwel.

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 BREATHEDED 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 θænk, (ii) medially in non-germanic words, e.g. method 'meθod, author 'ə:θə, sympathy 'simpəθi, (iii) finally in all words except those mentioned in § 289, e.g. mouth mauθ, mouth manθ.

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

Or vi'vəsiti.
(i) If one of the short vowels (viz: i, e, æ, ə, Æ, u, or ø) precedes, e. g. breaths breðs, maðs, smiths smiðs, mammoths ma¹maðs.

(ii) If a consonant precedes, e. g. length leŋθs, heaths helθs, months maŋθs.

(iii) If the letter r precedes in the spelling, e. g. births broːθs, hearths haːθs (compare baths baːðz).

(iv) In the exceptional cases heaths hiːθs, faiths feiθs, growths groupθs, laths laːθs, sloths sloʊθs.

In other cases ðz is used, e. g. baths buːðz, mouths maʊðz, yonths juːðz, cloths klaːðz (compare the singular buːθ, maʊθ, juːθ, klaːθ). In wreaths, sheaths, broths, the pronunciation varies; some say riːðz, fiːðz, braːðz and others say riːθs, fiːθs, braːθs. 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.

287. Words for practice: theme θiːm, thin θin, thank θæŋk, thousand θauznd, thong θoʊŋ, thorn θoːn, thumb θæm, third θəːd; heath hiːθ, smith smiθ, breath breθ, South (subst. and adj.) sauθ², bath baːθ, north nəːθ, both bouθ, truth truːθ, birth baːθ; method meθəd, author əˈθə, sympathy ˈsimplæθi; thirty three things ˈθəː tiˈθriː ˈθiŋz.

¹ There is a growing tendency to use the ðs forms in many other words e. g. truths, baths, oats, but their use is as yet hardly sufficiently established to justify us in regarding them as correct. Cloth, broth are pronounced klaθ, broθ by some speakers. With them the plurals are accordingly klaðs, braðs by the first rule. Some persons who use œ in the word cloth distinguish two plurals klaːðz and klaːθs, klaːðz being used in the sense of "pieces of cloth" and klaːθs in the sense of "kinds of cloth".

² The nouns mouth, South are maʊθ, sauθ. The verb south is pronounced sauθ by some, but is more usually sauð.
288. This sound is the voiced consonant corresponding to the breathed θ. It may therefore be defined as a VOICED PRE-DENTAL FRI CATIVE 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 ða:ð, northern ðo:ðen, (iii) in plurals of nouns ending in -th not preceded by r, containing a long vowel or a diphthong, e.g. paths ða:ðz, youths ju:ðz, oaths ouðz, mouths manðz (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 beid), and in the single words with wið, bequeath bi'kwiið, booth bu:ð, smooth smu:ð and the rare verbs mouth mauð and south sauð.\(^1\)

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 ðiz, this ðis, then ðen, they ðei, there ðae, that ðæt (also ðæt, see § 497), thy ðai, thou ðau, thus ðas, though ðou; see the si:ð, with wið, bathe beid, scythe said, loathe loud, sothe suð; gather 'gæðo, worthy 'wæ:ði; hither and thither 'hīðer:ð ðīðo.

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 ðísizðæθíñ, the sixth street ðæ'siksəθ'strikt, hyacinths and chrysanthemums 'hai:sinθənθri'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 BREATHE D BLADE POST-DENTAL (OR ALVEOLAR) FRI CATIVE consonant.

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1 Pronounced wið in the North of England.
2 The verb south is pronounced sauð by some.
3 With the author the teeth are often actually in contact in the pronuncia- tion of this sound.
295. The tip of the tongue is with some peakers raised towards the teeth-ridge (as in 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 ab'se:d, absolve ab'zalv; 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 dis, 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 kaets; takesteiks,laughslu:fs (chap.XVII). (ii) The s in the terminations -sive, -sity is always pronounced s, e.g. conclusive ken'klu:siv, curiosity
kjuәriˈositi. (iii) Final s preceded by one of the letters a, i, o or u is pronounced ŋ (when not mute)1, e.g. gas gæs, atlas ætæs, this ðiːs, basisˈbiːsis, chaosˈkeɪəs, us æs or ðæs², geniusˈdʒiːnjas, preciousˈprɛʃəs. The only exceptions are the inflected forms of nouns and verbs (e.g. plays pliːz, wus wʊz or wəz), and the single words his hɪz (or iz, § 336), as æz (or əz, § 497), whereas hweəˈreɪz, avoirdupois æˈvedəˈpɔɪz.

299. The following is a list of the chief words ending in -se in which the final consonant is s: base əˈbeɪs, base beɪs, case keɪs (with compounds, e.g. enca sesˈɪnkeɪs, staisˈtrairˌseɪkəs, chase tʃeɪs, erase iˈreɪs (also pronounced irˈeɪz), purchase pəˈtʃeɪz; cease siːs, crease kriːs, decease diˈsiːs, decrease (subst.) diˈkrɪːs, decrease (v.) diˈkriːs, grease (subst.) griːs⁴, increase (subst.) ɪnˈkriːs, increase (v.) inˈkriːs, lease liːs, release (subst. and v.) riˈliːs⁵; Chersonese keˈsaːnɪs, geese ɡiːs, obese əˈbiːs; anise əˈniːs, concise keˈnəˈsaiːs, paradise ˈpərəˈdaɪs, practise ˈpræktɪs, precise prɪˈsaɪs, premise (subst.) ˈpremis⁶, promiseˈprəmiːs, promiseˈprəmiːs, promiseˈprəmiːs; tortoise təˈtɔs; bellicoseˈbeɪlikəʊz, close (subst. meaning “enclosed place”, and adj.) kləʊs⁷, dose dəʊs, jocose dʒəˈkəʊs, morose məˈrəʊs, purpose pəˈpəʊs, verbose ˈvɜrˈbəʊs; goose gusː, loose ljuːs, nose nous (also pronounced nuːz); hypotenuse haiˈpətɪnjuːsː (also pronounced haiˈpətɪnjuːz), obtuse əbˈtjuːs, profuse prəˈfjuːs, recluse rɪˈklʊs, refuse (subst.) ˈrefjuːs⁸, use (subst.) juːs, douse daʊs, grous graʊs, house haʊs, house laʊs, mouse (subst.) maʊs⁹, souse saʊs; also all words ending in -lės, -nse, -pse, -rse (with the single exception of parse ˈpəːz), e.g. else ɛls, dense dens, lapse lɛps, course kəːs.

300. The sound s is also the usual sound of c before e, i and y, as in cell sel, face fɛsə, cinderˈsɪndə, mercyˈmerɪs.

301. s is silent in isle aɪl, ˈaɪlənd, aɪlənd, aisle aɪl, corps (sing.) koː¹⁰, chamoisˈʃæməʊ, Rendevousˈrændɪvəʊ, debrisˈdɪbrɪs, dimesne deˈmərn, viscountˈvækənt.

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 ž”, a sound which has an effect intermediate between s and z (phonetic symbol Z). Those who have this tendency should pronounce words like necessary ˈnesɪsərɪ, ceaselessˈsɪsləs.

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1 For examples of mute final s see § 301.
2 Reduced to ŋ in the expression let us... lets....
3 Foreigners often say az,ˈpreʃəz, etc.⁴ Grease (v.) is griːz.
4 When the substantive is used in the technical legal sense, opposed to lease, it is commonly pronouncedˈriːliːs.
5 Chiefly used in the plural premisesˈprəmiːz.
6 Close (subst. meaning “end”, and v.) are pronounced kləʊs.
7 Refuse (v.) is riˈfjuːz.
8 The rare verb meaning “to catch mice” is mauz.¹⁰ The plural is koː.
9 Often pronouncedˈʃemə in the expression chamoisˈʃæməˈleɪər.
10 The plural isˈrændɪvəʊ.
303. Further words for practice: see sii; sit sit, say sei, set set, sat set, sigh sai, sound saund, psalm sa:mn, song sa:ng, saw so: (= sore, soar), sun sau (= son), so sou (= sew), soon sun:n, soot sut\(^1\); this di's, less les, scarce sk'ez, pass pus, course ko:s, gross grous; places 'pleisz, ceases 'sizaz, exercises 'eksosaiziz.

\(^z\)

304. \(z\) is the voiced consonant corresponding to the breathed \(s\). It may therefore be defined as a VOICED BLADE POST-DENTAL (or ALVEO-LAR) 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 ob'za:v, his hiz. Final \(s\) denoting the plural of nouns or 3\(^{rd}\) person singular of the present indicative of verbs is pronounced \(z\) when preceded by a vowel or by a voiced consonant; examples trees triz, plays pleiz, rushes. ra:zh, dogs dagz, ideas ai'di:oz, falls fo:lz, gives giyz; also does da:z (or da:z, § 497), has haez or heaz (also \(z\) and \(s\), § 520), is iz (also \(z\) and \(s\), § 520), was wa:z (or wa:z, § 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:fi:z, Hades 'heidi:z, aborigines æbo'ridgini:z.\(^2\). 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'za:t, dissolve di'zo:lv, hussar hu'zu:, posses po'zes, scissors 'sizoz.

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.


\(^1\) Some say su:t, but sut is preferred by the author.

\(^2\) The only exceptions are yes jes and a few proper names such as Agnes ægnis, Elles 'ells. 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) ækstiz. Compare axes (plural of axe) æksiz.
The sound \( f \) 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, 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 \( f \) 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 \( f \) is usually accompanied by a certain amount of rounding and protrusion of the lips, though this is not essential. The sound \( f \) may be defined shortly as a breathed blade-front post-dental (or alveolar) fricative consonant.

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.

The chief difference between \( f \) and \( s \) is found in the position of the front (§ 33) of the tongue. In \( f \) 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 \( f \) 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 \( f \) is, moreover, generally a shade further back than that of \( s \).

Figs. 58 and 59 are palatograms of the sound \( f \), 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.

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 $\mathbf{f}$ than for $s$, while the part of the air-channel formed by the front of the tongue and the hard palate is narrower for $\mathbf{f}$ than for $s$.

313. $\mathbf{f}$ is the regular sound of $sh$ in English; examples $\text{shoe } \mathbf{fu}$, $\text{wish } \mathbf{wif}$. It is also often used where the spelling has $\text{-si, -ci, -sei, -ti}$, etc., followed by an unstressed vowel; examples $\text{mansion } \mathbf{maenfu}$, $\text{Persia } \mathbf{pe:so}$, $\text{special } \mathbf{spefl}$, $\text{provincial } \mathbf{provinsfl}$, $\text{musician } \mathbf{mjuzi:fu}$, $\text{precious } \mathbf{presos}$, $\text{ancient } \mathbf{ainsoent}$, $\text{ocean } \mathbf{ausn}$, $\text{permission } \mathbf{po'mifn}$, $\text{conscious } \mathbf{konsoes}$, $\text{nation } \mathbf{neifn}$, $\text{exhastious } \mathbf{veksii:soes}$, $\text{partial } \mathbf{po:fl}$, $\text{partiality } \mathbf{po:flai:iti}$, $\text{associate } \text{(verb)} \mathbf{e'sousi:leit}$, $\text{(noun) } \mathbf{e'sonofi:it}$; so also in words like $\text{censure } \mathbf{senfa}$. $S$ is pronounced $\mathbf{f}$ in $\text{sure } \mathbf{fu}$, $\text{assure } \mathbf{a:fu}$, etc., and in $\text{sugar } \mathbf{fuge}$. $Ch$ is pronounced $\mathbf{f}$ in various recently borrowed French words, such as $\text{cham-pagne } \mathbf{fam'pein}$, $\text{chandelier } \mathbf{fandai:leio}$, $\text{machine } \mathbf{maofin}$, $\text{moustache } \mathbf{mas'tou:f}$.

314. The sound $\mathbf{f}$ also occurs in the consonantal group $\mathbf{ts}$. For details and examples see §§ 130—133.

315. Some foreigners have a tendency to voice the sound $\mathbf{f}$ to some extent, especially when it occurs between two vowels, replacing it by $\mathbf{s}$, others are apt to use an “unvoiced $\mathbf{s}$”, a sound which has an effect intermediate between $\mathbf{f}$ and $\mathbf{s}$ (phonetic symbol $\mathbf{z}$). Those who have this tendency should practise words such as $\text{nation } \mathbf{neifn}$, $\text{marshes } \mathbf{mu:ziz}$, $\text{social } \mathbf{sonofi}$.

316. Danes often make the sound too palatal, with the result that it sounds to an English ear like $\mathbf{ff}$, $\text{shine } \mathbf{jain}$, for instance, sounding like $\mathbf{ffain}$. 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: $\text{sheaf } \mathbf{fjel}$, $\text{ship } \mathbf{fip}$, $\text{shock } \mathbf{felf}$, $\text{shell } \mathbf{felo}$, $\text{share } \mathbf{fse}$, $\text{shadow } \mathbf{fjadoen}$, $\text{shower } \mathbf{fue}$, $\text{sharp } \mathbf{fa:p}$, $\text{shock } \mathbf{fok}$, $\text{shore } \mathbf{fa:}$, $\text{show } \mathbf{fou}$, $\text{slum } \mathbf{fan}$, $\text{shoe } \mathbf{fu}$, $\text{shirt } \mathbf{fij}$, $\text{fish } \mathbf{fl}$, $\text{ash } \mathbf{af}$, $\text{marsh } \mathbf{mo:fa}$, $\text{squash } \mathbf{skwaj}$, $\text{hush } \mathbf{bu}$.  

1 And all other words in $\text{-tial}$ except $\text{bestial } \mathbf{beztial}$ and $\text{celestial } \mathbf{si'l'estial}$.

2 Note $\text{associate } \text{(verb)} \mathbf{a'sousi:leit}$, $\text{appreciate } \mathbf{a'pri:leit}$, $\text{appreciation } \mathbf{apri:flai:en}$, $\text{negotiate } \mathbf{ni'fou:leit}$, $\text{negotiation } \mathbf{ni'foufleit}$, but $\text{association } \mathbf{a'sousi:leit}$ (less commonly $\mathbf{a'sonflleit}$), pronunciation $\mathbf{pro'anflleit}$.

3 Also pronounced $\mathbf{fa:e}$.
318. The sound ɔ 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. ɔ is the sound of s in words like measure 'meʒə, si- in occasion o'keiʒn, hasier 'houʒə and numerous other words in which -si- is immediately preceded by a stressed vowel. ɔ is also heard in the miscellaneous words usual 'juːʒəl, azure 'æʒə, transition tran- 'sɪŋz, rouge ruːʒ.

320. The sound ɔ 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 Scandi- navians and Germans, do not voice the sound properly, but replace it by a consonant which sounds like a weak ʃ, namely the sound ɔ 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 ɔ, sustaining it on various notes.

322. Danes generally make the sound too palatal. The sound which they produce sounds to an English ear like ʒ when between two vowels, and like simple j in the group dʒ; thus measure sounds too much like 'megʒə 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.

The Fricative r (Narrow Symbol [ɾ])

323. The fricative r [ɾ] 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

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1 Not however in cases like cosier 'kəuzə (comparative of cosy).
2 Pronounced by some tran'ziʃn.
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.

§

326. The sound ̪ 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. ̪ is the German "ich-Laut". The sound is used by many English persons in such words as huge ̪Æd3, human ̪imən. All such words have, however, an alternative pronunciation with ̪j; in fact this latter form is usually regarded as the normal. It is often advisable for foreigners to adopt the ̪ 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 ɪ, ʊ, u 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 hit is a devocalized i (i), the h in hard hard is a devocalized a (a), the h in hook huk is a devocalized u (u), etc. If an extremely accurate mode of transcription were required, we could write these words jɪt, ʊæd, ʊuk. 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 hə: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 əə, hour aʊ, honour ənə, honest ənɪst 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 breathed velar fricative (fig. 62) (phonetic symbol x), that is, the sound heard for instance in the Scotch loh k lox, Spanish jabon xa'vən. 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 hə:d, he hɪ:, hook huk, etc., may be obtained by whispering the vowels a, 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 tū'pɥ with devocalized i, c'est tout is often sc'tu with devocalized u. In such cases the final sounds are simply varieties of h, i being the same as the h in hi:, u being the same as the h in hu:.

334. Words for practice: he hɪ:, hit hit, here hɪə, hay hei, help help, hair həə (= hare), hat hæt, high hai, how hau, hard hu:d, hot hɑt, hall hɔ:l, hut hɑt, hold hould, who hu:, hurt hɑ:t; perhaps pə'həps, behind bɪ'haind, hedgehog 'hedʒhɑg1, boyhood 'bəihud, buttonhook 'bətnhuk.

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 hjuː (= 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 çuːdʒ, 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 aflə'dəvθə:tsəʊ (often reduced to afləfθə:tsəʊ, § 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 həd her hɑt in her hænd fli:'hədə:'hætɪnə:hænd it would sound pedantic to sound the h in the words her.

1 Also pronounced 'hedʒəg.
337. \( \mathbf{n} \) is occasionally dropped in initial unstressed syllables of ger words, such as \textit{horizon}, \textit{historical}, \textit{hotel}. Thus it would be quite il to pronounce on the horizon, from the historical point of view as \( \text{ia}'\text{raizu}, \text{fram'oliis'teriklpoine}^\text{avju} \). Those who would sound \( \mathbf{h} \) in \textit{hotel} when pronounced by itself, would often drop it in a \( \text{a't} \text{ho}^\text{tel} \text{a'gudo'te} \).

338. The so-called “voiced \( \mathbf{h} \)” (phonetic symbol \( \mathbf{\text{h}} \)) is a vowel produced 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 \( \mathbf{h} \) by voiced sound, when the sound occurs between two vowels, as in \( \text{aps pæ hæps} \text{ or pə'hæps} \text{, boyhood 'boi hud or 'boi fud, the hedge hedz or de'fiedj, two hundred 'tu'handred or 'tu'handred}. \) Others occasionally, especially when the words are pronounced with intonation. It is, however, preferable for teaching purposes to put the breathed \( \mathbf{h} \) in all cases.

\textbf{INITIAL AND FINAL VOICED FRICATIVES}

340. In English when a voiced fricative, e.g. \( z \), is initial or final, often not fully voiced. When initial, as in \( \text{seal zil} \), it usually is breathed and ends voiced, and when final, as in \( \text{ease iz} \), it usually begins voiced and ends breathed. When final and preceded by her consonant, e.g. in \( \text{heads hedz, sounds saundz} \), it is often completely devocalized, becoming a weak kind of \( s \) (phonetic symbol \( z \)), thus \( \text{hedz, saundz or even saundz or saunz} \). With some English speakers all final voiced fricatives, whether preceded by consonants or not, are completely devocalized; this pronunciation seems to the corresponding breathed sounds.

341. The French often pronounce initial and final voiced consonants, especially final voiced consonants, with too much voice, and 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 ing initial and final voiced consonants fully voiced. Germans have difficulty in pronouncing final voiced fricatives at all, and most foreigners (other than the French) are apt to make them too much the corresponding breathed sounds.

In rapid speech this word is more usually pronounced \( \text{præps} \) (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 §§ 56, 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. a 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 wait, away ə'wei, twelve twelv. u is generally pronounced in this way when preceded by q, e.g. quite kwail², and often when preceded by ɡ in unstressed syllables, e.g. language læŋɡwɪdʒ. Note the exceptional words one wan, once wans, choir 'kwaiə, suite swit (= sweet).³

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

² Not however in conquer 'konkə, etiquette eti'ket, exchequer ik'stʃeke, liquor 'lɪkə, and a few other words.

³ Note also that will (verb) (strong form wil) 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 u, 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 round-
ing 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.

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 m. m is used by many English speakers in words
spelt with wh thus what mat:, which mitf. 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 mat, mitf, etc., though mat or hwat, mitf or hwitf, etc., may also
be heard, especially from ladies. Foreigners may use whichever pro-
nunciation they prefer. The notation hw is used in this book in
transcribing these words; it is to be taken as meaning that either
w, m, 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 v. It is a sound which is intermediate in acoustic
effect between w and v; it is very frequently heard in German words
like Quelle 'kvela or 'kvelə, zwei tsvaι or tsvai. Sometimes for-
eigners 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 pra-
tising win win, well wel, for instance, as w:in, u:el, etc. It is also
very useful to practise the exercise u:əu:ə:... with energetic motion

1 The sound may also be written W (being the symbol of devocalization).
2 The editors of the Concise Oxford Dictionary are of opinion that the use
of hw or m in the South of England is chiefly confined to "purists in pronunciation".
3 Narrow transcription '[kvélə] or ['kvélə].

Jones, English Phonetics
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 o: 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 hwi:l. 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 η, huit being transcribed [ŋi:t].)

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

355. Words for practice: we wi:, with wið, wake weik, wet wet, wear weə, wag wæg, wife waɪf, wound (past tense and past participle of the verb send) waund, want want, warm wɔm, won wan (=one), won't wound, wound (injure, injury) wʊnd, wool wul, word wɔd; waver 'weɪvə, equivalent i'kwɪvəlent. The following sentence affords good practice for Germans: we would work if we were wise wi:wud-

'we:kifwi:we'waɪz.

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 jɪ: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 ʝ, and there is much to be said in favour of this plan.

358. The palatogram of the j in the group jə: 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

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1 For the somewhat different j in ij see § 367 and note.
sound is \( \mathfrak{a} \); examples onion \( \text{'anjan} \), familiar \( \text{fə'nilja} \), simultaneous simul'teimjəs'.

360. In words spelt with \( u \), \( ue \), \( eu \) and \( eU \), representing long \( u \), \( j \) is sometimes inserted before the \( u \): (as in uniform \( 'ju:ni'fər\mathfrak{m} \), few \( fj\mathfrak{u} \)) and sometimes not (as in rule \( ru:lu \), chew \( t\mathfrak{ju} \)). The rules with regard to this are as follows. (i) The \( j \) is never inserted after \( j \), \( z \) or \( r \), or after \( l \) preceded in turn by a consonant; examples chew \( t\mathfrak{ju} \), June \( d\mathfrak{3}u:n \), rule \( ru:lu \), blue \( bu:-lu \). (ii) The \( j \) is regularly inserted after \( p \), \( b \), \( t \), \( d \), \( k \), \( g \), \( m \), \( n \), \( f \), \( v \), \( h \); examples pew \( p\mathfrak{ju} \), due \( d\mathfrak{ju} \), new \( nj\mathfrak{u} \), few \( f\mathfrak{ju} \), huge \( hj\mathfrak{u}:d\mathfrak{3} \). (iii) The \( j \) is regularly inserted after \( l \) preceded by a vowel, when that preceding vowel is stressed (examples deluge \( 'd\mathfrak{elju}:d\mathfrak{3} \), value \( 'vælju:z\mathfrak{m} \), or half-stressed (example aluminium \( 'ælju:(\mathfrak{m})-\text{minjəm} \). (iv) Usage varies in words in which \( l \) is initial or preceded by an unstressed vowel; thus lute, absolute are pronounced \( lj\mathfrak{u}:t \), \( 'æb\mathfrak{s}lju:t \) by some, and \( lu:t \) (like loot), \( 'æb\mathfrak{s}lju:t \) 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 \( \Theta \) usage also varies, but the forms with \( j \) are preferred by the author; thus \( sj\mathfrak{u}:t \) (suit), \( in\'\theta\mathfrak{ju}:z\mathfrak{m} \) (enthusiasm) appear preferable to \( su:t \), \( in\'\theta\mathfrak{uz}z\mathfrak{m} \).

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 \( \mathfrak{q} \) 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 \( jes \) instead of \( jes \). (\( j \) is the voiced palatal plosive consonant, corresponding to the breathed \( e \) mentioned in § 149.)

363. Words for practice: ye \( ji:-, \) yet \( jët \), yard \( ja:d \), yacht \( jæt \), your \( j\mathfrak{o}:- \), yolk jouk (= yoke), you \( ju:- \), yearn \( jæn \); beyond \( bi'jənd \), familiar \( fə'nilja \).

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1 Note that \( i \) does not usually have the value \( j \) when followed by vowels other than \( \mathfrak{a} \). Thus peculiarity, pronunciation are with most speakers pikju:'li-\mathfrak{ə}rəti, prən\mathfrak{an}si'elfn (not pikju:'lj\mathfrak{ə}rəti, prən\mathfrak{an}':jelfn as sometimes pronounced by foreigners).
2 Also pronounced \( 'vælju \).
3 Less pronounced \( ju: \).
4 Also pronounced \( bi'\mathfrak{ə}nd \).
CHAPTER XII

THE FRONT VOWELS

364. There are six front vowels in standard English, the symbols for which are i, i, e, œ 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.

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.

366. i: is the "long" sound of the letter e; examples me mi:, see si:, complete kæm'pli:t, even i:v'n. i: is also the sound of ea, ie, ei and i in many words; examples sea si:, east i:st, fild fild, seise
siːz, machine məˈʃlən. Note the exceptional words key kl̩, quay kl̩, people ‘pləpl.

367. The English long (and “tense”) i: is very similar in quality to the sound of i in French, as in ici īsī (narrow transcription [īsī]), and the German long iː, as in mir miːr, siː zīː. 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 ĭj: thus sea is pronounced siː or siːj.

368. The average continental tense i does not, however, sound wrong (in quality), when used in English words like sea, etc. 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 iː.

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 eːi, is used; thus the word sea, which is pronounced in standard speech siː or siːj, becomes in Cockney almost sei or soːi.)

370. Words for practice: peak ptːk, beak bliːk, teem tiːm, deem diːm, keen kɪn, geese giːs, meat, meet miːt, need niːd, leaf liːf, wreath riːθ, queen kwiːn, fee fiː, veal viːl, these ðiːz, siege siːdʒ, zeal ziːl, heed hiːd.

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 iː, 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 ĭj, is identical with the tongue position assumed at the very beginning of the group ĭj. Those who would prefer not to use the same symbol j in these two different senses, are recommended to use j in the diphthong, thus ĭj, 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.
case of the long i: (see § 89 ff.). 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 ritf, city 'siti (or 'site, § 376), system 'sistim. 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'geid5, except ik'sept, examine ig'zæmin, horses ha'siz, useless ju'slis, goodness 'qudnis, village 'vilid5, private 'prairit; it is also the sound of unstressed -ies, -ied, as in varieties vo'ralotiz, carried 'kærid. Note also the miscellaneous words minute 'minit, threepence '6rip9ns, women 'wimin, Sunday 'si.ndi, etc., pretty 'priti, England 'iggland, English 'igglij, 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

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1 Or 'sistem.
2 Note the difference between explain lks'plein and explanation eksple'neɪn, exhibit iɡ'zɪbit and exhibition eksɪ'bjɪn, 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 'estimit, 'əsonfɪt, 'əprouprɪt, 'intɪmit, 'səpərɪt, while the verbs estimate, associate, appropriate, intimate, separate are pronounced 'estɪmɪt, 'əsonfrɛt, 'əprouprɪelt, 'intɪmɪt, 'səpərɛt. Intermediate is an exceptional word in which the vowel of the termination is ə (ɪntə'mɪdɪət). The -it is often changed to -ot- in the derived adverbs; thus though the adjective deliberate is normally dl'ilbərɪt, yet the adverb deliberately is pronounced dl'ilbərətli 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) [siti] or [sitə], as [sɪtɪ]. 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 *éâ*. 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 [bɛbɛ] with lax English vowels and not like the French bêbé [bêbé] 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). This is especially the case with final *i*, as in *very 'veri*, *money 'mani*, *really 'rieli*. Many English speakers actually use *e* in such cases (*site*, *weited*, *leidez*, *gudnes*, *vere*, *mane*, *riele*). Foreigners who are apt to use a tense *i* instead of lax *i* may with advantage practise using *e* in such cases.


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

379. Examples of this diphthong are found in the words *here*, *hear hɪə*, *beer bɪə*, *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, *hɪə* becoming *hɪr* or *hɪr*, 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 *eə*.

381. Words for practice: *pier pɪə*, *beer bɪə*, *tear (of the eyes) tɪə*, *idea ai'dɪə*, *Keir kɪə*, *gear giə*, *mere miə*, *near niə*, *leer liə*, *real riəl*, *weir, we're (conversational form of we are) wiə*, *fear fiə*,

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

2 *Tear (verb) meaning "to rend in pieces, damage" is tse; so also is the corresponding substantive.
Chapter XII. The Front Vowels

vior, theatre, 

teer sie, sheer jio, jeer d3io, year jio, here, hear hio.

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

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”; 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 palato-gram of the sound is given in 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 bre6. Note the exceptional words any ‘eni, many meni, Thames temz, ate et, Pall Mall ’pel’mel.

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

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1 Also very commonly pronounced ja::.
2 Also pronounced hija::.
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 e.
but many English people use an opener sound of the half-open type which might be represented by the symbol \( \varepsilon \).

386. Many foreigners, especially the French, replace the English e by a very open \( \varepsilon \) (§ 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 \( \varepsilon \) heard in French words like même mɛ:m, père pɛ: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 dən, seven 'sevn, zest zest, shell jel, gem dʒem, 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 geidʒ.

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 [dɛɪ]) with the same vowel sound as the German See ze: (narrow transcription [zɛ:]).

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 \( \varepsilon \) or \( \varepsilon \) (§ 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 beɪθ, table 'teɪbl, day dei, scale skeil, game gɛim, maid, made meid, neighbour 'neibə, late leit, railway 'reɪlweɪ, wake weik, face feis, veil, vale veil, they dei, same sem, shape sɛip, James dʒeimz, 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.
e (the vowel in *fair* \(\text{fi}\))

393. In pronouncing the sound \(e\) the front of the tongue is somewhat raised in the direction of the hard palate, but not so high as for \(e\) (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 \(e\) 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 \(e\) pronounced by the author gives no palatogram.

394. The sound \(e\) only occurs in normal Southern English as the first element of the diphthong \(ea\). This diphthong is the regular sound of the group of letters *air*; examples *pair* \(pe\), *fair* \(fe\). The groups *-ear* (when not followed by a consonant) and *-are* also have this sound very frequently; examples *pear* \(pe\), *bear* \(be\), *care* \(ke\), *rare* \(re\). Note also the exceptional words *there* and *their*, which are both pronounced \(\text{\&}e\).²

395. In many other languages the sound \(e\) occurs independently of diphthongs; thus it is the sound of the French \(\text{\&}\) as in *mène* \(m\text{\&}m\), and it is a frequent sound of the German \(\text{\&}\) as in *Thürne* \(\text{\&}\text{\&}\text{\&}\). Some English people, especially Northerners, use a sound of the \(e\) type in words like *get* (see § 385).

396. Many educated Southern English speakers replace the diphthong \(ea\) by the diphthong \(æ\) (for \(æ\) see § 398). Thus it is quite common to hear *pair*, *bear*, *there*, etc., pronounced \(pe\), *be\), *de\), etc.

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

æ (the vowel in *glad* \(\text{gl\ad}\))

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

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¹ Compare *beard* \(\text{bi\ad}\), *earth* \(\text{\&}\), etc.

² *There* has also a weak form \(\text{\&}\), § 497; *their* before vowels has an occasional weak form \(\text{\&}\).
is very slightly raised in the direction of the hard palate, remaining, however, apparently lower than the half-open position (i.e. that of \( \varepsilon \), 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 U R N O U N D V O W E L, OPEN BUT SLIGHTLY RAISED**\(^1\) (§§ 76, 88, 80). The tongue position may be taken to be intermediate between those of \( \varepsilon \) and \( \alpha \) (fig. 65); a palatogram of \( \varepsilon \) is given in fig. 79.

399. \( \varepsilon \) is the so-called "short" sound of the letter \( \alpha \); examples *glad* glæd or gladː, *cat* kæt, *lamp* læmp. The sound is regularly represented by the letter \( \alpha \), the only exceptions being *plait* plæt and *plaid* plæd. Note that *have* is hæv (strong form\(^2\)); *bade* is bæd or bæd.

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

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\(^1\) 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 \( \varepsilon \) as a tense vowel and \( \varepsilon \) as the corresponding lax vowel. In passing from \( \varepsilon \) to \( \varepsilon \) 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 \( \varepsilon \) gives a palatogram while \( \varepsilon \) does not, though the middle of the tongue seems to be lower for \( \varepsilon \) than for \( \varepsilon \). The author is also conscious of a contraction in the pharyngeal region in the production of \( \varepsilon \). 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 \( \varepsilon \) by telling them to tighten the throat. (The existence of this contraction in the throat is no doubt the reason why the sound \( \varepsilon \) cannot be characteristically pronounced with good voice-production. Singers commonly substitute \( \alpha \) for \( \varepsilon \)).

\(^2\) The vowel is in reality often long; see § 542.

\(^3\) The weak forms of this word are hæv, \( \varepsilon \)v and v, § 497.
between *man* *mæn* and *men* *mɛn*, *pat* *pæt* and *pet* *pɛt*, and replacing
*cab* *kæb* by the Cockney form *kɪb*.

401. The correct sound of *æ* can generally be obtained by remembering
that *æ* must have a sound intermediate in quality between *ɛ* 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 *'bæː'bæː* (or *'bæː'bæː*). 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 *ɛ*. *a* is actually used for *æ* in some parts of the North of England.

403. Words for practice: *pat* *pæt*, *bad* *bæd* or *bæːd*, *tax* *teks*,
*damp* *dæmp*, *cat* *kæt*, *gas* *gæs*, *men* *mæn* or *mæːn*, *nap* *næp*, *lamb*
*læm* or *læːm*, *rash* *ræʃ*, *wag* *wæg*, *fat* *fæt*, *van* *væn*, *thank* *θænk*,
*that* *ðæt*, *sand* *sænd*, *exact* *ɪɡзækt*, *shall* *ʃæl*, *jam* *dʒæm* or *dʒæːm*,
*hang* *hæŋ*.

### a (THE FIRST ELEMENT OF THE DIPHTHONG IN high hal)

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 *æe*, *aq*.

406. *ai* is the so-called "long" sound of the letters *i* and *y*; examples *time* *tæm*, *idle*
*ɪdəl*, *night* *næt*, *child* *ʧæld*, *find* *fænd*, *fly* *fæli*. It has the value *ai* when final, as
in *pie* *pæi*, also in the inflected forms *tried* *træid*, *cries* *kɹæz*, etc. *Ei* is pronounced *ai*
in the single words *height* *hæt*, *sleight* *slæt*,

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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 'ailə, neither 'naiðə, eider 'aɪdə. Note the exceptional words buy bai, eye ai, choir 'kwaiə, assle 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 maɪˈklaʊd.

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 æ.

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 œ. 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 œu. 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 ai\(^1\), though not nearly so far back as a (§ 420); compare fig. 84 with fig. 81 and with fig. 88. The difference between the two a\(s\) is, however, very slight and may be neglected by foreigners without risk of mispronunciation.

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\(^1\) Also pronounced 'iːdə.
\(^2\) Also pronounced 'niːdə.
\(^3\) With many Londoners, however, the a of au is further forward than the a of ai.
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 awail, fierce fair, vine vain, thy dai, side said, resign ri’zain, child t’said, height hait; pound paund, bough, bow (bend the body) bau\(^1\), town taun, doubt daut, cow kau, gown gaun, mouth mauθ, now nau, loud land, row (noise) rau\(^2\), wound (past of the verb wind waind) wnund\(^3\), fowl, foul foul, vow vau, thousand ‘Θουζν, thou θau, sow (pig) sau\(^4\), resound ri’zaud, shout haut, how hau.

414. ai sometimes forms a so-called triphthong (§§ 107, 108) with a following a, e.g. fire ‘faɪə. In pronouncing this triphthong, the tongue does not really reach the full i position with most speakers; aei or aəi 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 faː or sometimes even faːː (distinct from far fuː); empire is often pronounced ‘empeɪə or ‘empeːə. 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 ‘haː’rap, etc., instead of ‘fələri etc. The English word wires, usually transcribed ‘waɪəz, very often becomes practically identical with the French word Oise waz.

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 ao or even aə. 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 aː. This retracted aː may be represented phonetically by ãː, thus power, usually transcribed ‘paʊə, often becomes pəː. This levelling of the triphthong is especially frequent when a consonant follows, as in powerful ‘paʊəfl, ‘paʊəfl, ‘pəːfl or ‘pəːfl, our own anə’roun, aoə’roun, æə’roun or æː’roun.

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1 But a bow for shooting, etc., is bou.
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 wnːd.
4 But the verb to sow is sou.
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 aə, 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 aː and the full front aː may affect the meaning of words. Thus ‘taːriŋ with the full front aː is the contracted form of tiring ‘tələriŋ, and is distinct from təːriŋ the contracted form of towering ‘təʊəriŋ; this again is quite distinct from tarring ‘təːriŋ.
416. Foreigners often make the i of aie and the u of auə much too strong, so that the triphthongs become almost ajo, awe, 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 'p’aieti, 'paəti or 'pa:tʃ (distinct from party ‘pəti), Byron 'baɪərən, ‘baərən or ‘ba:ərən, tyrant 'taɪrənt, 'taərənt, diaphragm 'daɪəfræm, ‘daəfræm or ‘da:fræm, liable ‘laɪəbl, ‘laəbl or ‘la:bl, fiery ‘faɪərə, ’faəri or ’fa:ri, violent ’vaɪələnt, ’vaələnt or ’va:lənt, scientific saɪəntɪfɪk, saəntɪfɪk or sa:ntɪfɪk, desirable dɪ’zaiərəbl, dɪ’zaərəbl or dɪ’zaərəbl; powerful pəʊəfl, ’pəəfl or ’pæfl, towering ’taʊərɪŋ, ’təərɪŋ or ’tə:riŋ, dowry ’daʊəri, ’dəəri or ’də:ri (distinct from ’da:ri the reduced form of diary ’daiərə), Gower Street ’gəʊəstrɪt, ’ɡəəstrɪt or ’ɡəstrɪt, now-a-days ’nəʊədəiz, ’nəədeiz or ’nə:deiz, flowerpot ’fləʊəprət, flæəprət or flə:prət, devouring di’vəʊərɪŋ, di’vəərɪŋ or di’və:riŋ.

418. There is one exceptional case in which the levelling of aie, 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 [l]), as in trial ‘traɪəl, towel ‘təʊəl. 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 aie may be levelled to a; the “dark” l not being used in that case. Thus in the trial is over ə’təɪəlɪ’zɔəvə, trial could not be reduced to trail, but might be reduced to traal or tra:l.

CHAPTER XIII
THE BACK VOWELS

419. There are seven back vowels in normal educated Southern English, the symbols for which are o:, ə, [from_letter], a, ə, 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.

a: (THE VOWEL IN calm kə:ml)

420. In pronouncing the vowel a: 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
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 a may be defined shortly as an open back unrounded vowel, slightly advanced (§§ 80, 76, 88).

421. a: 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 fa:, par pa:t. A has the sound a: in half ha:f calm ka:m and various other words in which the l is silent (see § 232); also in numerous words which followed by ff, ss, or by f, s, or n followed by another consonant e.g. staff sta:f; class klæs, pass pa:s, after ‘a:ftə, fast fa:st, castl ‘ka:sl, ask a:sk, command ka’mən’d, grant grɑ:nt, can’t kɑ:n’t; also in most words ending in th, e.g. bath ba:θ; also in some words of foreign origin, e.g. moustache mos’taːʃ, drama ‘drɑːmə, toma:tə’mə:tən, vase vaːz. Note also the words ah a:, are a:, aunt a:nt draught draːft, laugh laːf, clerk klæk, Berkeley ‘ba:kli, Berkshir ‘ba:kʃiə or ‘ba:kʃə, Derby ‘da:bi, Hertford ‘haːfəd, sergeant sa:dʒənt example ig‘zæmpl, heart haːt, hearth haːθ, father ‘faːdə, rather raːðə and French words such as memoir ‘memwə, reservoir ‘rezərvəː.

422. The English vowel a: is about the same as the normal sound of French â, as in pâte paːt.

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

1 Are has a weak form ə (§ 497).
2 Also pronounced ‘memwə, ‘rezərvəː.
424. The Portuguese may acquire the correct English \( \alpha \): by noticing that the sound is rather like the vowel they use in Portuguese in the group \( al \) (as in \( tal \)).

425. When \( \alpha \) is followed by a nasal consonant, the Portuguese are apt to replace it by a vowel resembling \( \epsilon \): (§ 478), pronouncing, for instance, \textit{answer} (standard English \( '\textit{ans}\epsilon \)) almost \( '\textit{om}n\epsilon r \) (or \( '\textit{n}ns\epsilon r \) with a nasalized \( \epsilon \)).

426. All foreigners must be careful not to add a \( r \) sound of any sort after the sound \( \alpha \), unless a vowel follows. Thus the English word \textit{marsh ma:\#} is practically identical with the French \( m\acute{a}\ch \); many Germans pronounce \( \textit{Bahn} \) exactly like the English \( \textit{barn} \); \( far \) is pronounced \( fu: \) (though \( far \) \( \textit{away} \) is \( 'fu:re\'wei, \) § 251).

427. Some English speakers diphthongize slightly the sound \( \alpha \): especially when final, saying, for instance, \( \textit{fuo} \) for \( \textit{fu:} \). This pronunciation is not, however, the most usual in educated Southern English, and is not recommended to foreigners.


THE ENGLISH SHORT \( \alpha \) (THE VOWEL IN \textit{not} \textit{not})

429. In pronouncing the English short \( \alpha \) 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. \( \alpha \) is the “short” sound of the letter \( o \); examples \textit{not not}, \textit{pond pond}, \textit{dog dog}, \textit{sorry \'sori}, \textit{solid \'s\textit{a}lid}. \( A \) often has this sound when preceded by \( w \) and not followed by \( k \), \( g \), or \( y \); examples \textit{want want}, \textit{what \textit{hw}at}, \textit{squash sk\textit{w}af}, \textit{quality \'kwol\textit{ti}1} (but \textit{wax w\textit{eks}}, \textit{wag \textit{w}\textit{e}g}, \textit{twang \textit{t}\textit{w}e}\( n \)). Many English speakers use \( \alpha \) instead of \( \alpha \): before \( l \) or \( s \) followed by a consonant, \( e \). \( g \). \textit{false \textit{f}\textit{e}:ls or \textit{f}\textit{e}ls, fault \textit{fa}\textit{l}t or \textit{fa}\textit{l}, hait \textit{ha}\textit{l}t or \textit{h}\textit{a}lt}, \textit{Austria \'\textit{as}\textit{t}ria} or \textit{\'\textit{os}\textit{t}ria}. Note the exceptional words \textit{gone \textit{gon} (also \textit{gon})}, \textit{shone \textit{\textit{sh}on}}, \textit{cauli-flowner \'ka\textit{li}fl\textit{au}n}, \textit{laurel \'l\textit{a}r\textit{el}}, (a\( c \)\textit{knowledge \( (\textit{ak})\'n\textit{ol\textit{id}}\), \textit{Gloucester \'g\textit{la}st\textit{e}, yacht \textit{j}\textit{\textit{at}}}.

\( ^1 \) Foreigners are apt to pronounce this word with \( \alpha \): instead of \( \alpha \).
481. Foreigners generally do not make the sound open enough. They should remember that in pronouncing the English short \( \ddot{o} \) the tongue is as low down and as far back as possible. Some French people use a vowel very similar to the English short \( \ddot{o} \) in such words as \( \text{pas} \); those who pronounce in this way may obtain the English short \( \ddot{o} \) by pronouncing this vowel with some lip-rounding added. Other foreigners are often able to obtain the correct English short \( \ddot{o} \) by remembering that it has considerable resemblance to \( a \).

482. Cases in which the sound \( \ddot{o} \) occurs in unstressed syllables often seem particularly difficult to foreigners and require special practice. Examples: cannot \( \text{kænət} \), a day on the river \( \text{ə'deɪəndəˈrɪvə} \), what are you thinking of? \( \text{θwəˈtəjə'θɪŋkɪŋ} \).

483. Words for practice: \( \text{spot} \) \( \text{spɒt} \), \( \text{bomb} \) \( \text{bəm} \), \( \text{top} \) \( \text{tɒp} \), \( \text{doll} \) \( \text{dɒl} \), cotton \( \text{ˈkɒtn} \), \( \text{got} \) \( \text{ɡɒt} \), moss \( \text{mɒs} \), not \( \text{nɒt} \), long \( \text{lɒŋ} \), rock \( \text{rɒk} \), squash \( \text{skwɒʃ} \), watch \( \text{wɔtʃ} \); foreign \( \text{ˈfɔrɪn} \), involve \( \text{ɪnˈvɒlv} \); methodical \( \text{ˈmeθədikl} \), sorry \( \text{ˈsɔri} \), shop \( \text{ʃɒp} \), John \( \text{dʒɒn} \), yacht \( \text{jɑt} \), hop \( \text{hɑp} \).

**THE ENGLISH LONG \( \ddot{o} \): (THE VOWEL IN SAW SO)**

484. In pronouncing the English long \( \ddot{o} \) 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 \( \ddot{a} \), 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.

485. \( \ddot{o} \) is the regular sound of \( \text{aw} \) and \( \text{au} \); examples \( \text{saw} \) \( \text{so} \); \( \text{lawn} \) \( \text{lɔn} \), author \( \text{ˈɔːθə} \). It is also the regular sound of \( o r \) when at the end of a word or followed by a consonant; examples nor \( \text{nɔːr} \) (like \( \text{gnaw} \)),

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1 The somewhat similar vowel heard in the French \( \text{pɔʁ} \), German \( \text{dɔʁt} \) is rather half-open while the English vowel is fully open.
2 The normal French pronunciation is \( \text{pad} \), with a vowel practically identical in quality (though not in quantity) with that in the English \( \text{palm} \).
3 Often pronounced \( \text{wɔːf} \) by foreigners.
4 Often pronounced \( \text{lnˈvɔːl} \) by foreigners.
5 In the groups \( \text{aw} + \text{consonant} \) and \( \text{au} + \text{consonant} \) many speakers substitute the short \( \ddot{o} \), see § 430.
short ə:t, form ə:m. The groups ore, oar are commonly pronounced ə, though a diphthong əə is also permissible in such words; examples more ə:ə or ə:ə, roar ə:k (like raw) or ə:ə, board ə:d or ə:d; ə: with the variant əə is also heard in many words spelt with our; examples pour ə:ə or ə:ə, course ə:k's or ə:k's. A frequently has the value ə: when followed by t final or followed by a consonant; examples appal ə:po:l, all ə:l, halt ə:lt. Ar frequently has the value ə: when preceded by w and followed by a consonant, examples swarm ə:wə:m, quart ə:kwə:t. O is pronounced ə: (with a variant ə) in many words when followed by f, s or θ; examples off ə:f (also əf), often ə:fn (also əfn), loss ə:s (also los), cost ə:kst (also kəst), cloth ə:θ (also kləθ). Ough has the value ə: when followed by t, as in thought ə:tt, also in cough ə:k:f, trough ə:tʃ (these two with variant ə). Note the exceptional words broad ə:rd, door ə: or də, floor ə: or flə, water ə:wo:tə, wrath ə:θ.

436. Note that the amount of lip-rounding in the long ə: is much greater than in the short ə (figs. 90, 92). The long sound ə: 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 cōt German wohl ə:1). Most foreigners do not use sufficient lip-rounding in pronouncing the English long ə:; 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 ə: above referred to, and say sor, etc.

437. Foreigners must be particularly careful not to add a r-sound of any sort (§§ 250, 263) after the sound ə:, 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 ə:ə; stork is identical with stalk ə:rk. Note, however, cases like more easily ə:ri:zili where r is inserted on account of the following vowel.

438. Many foreigners (especially the French) have great difficulty in distinguishing the sound ə: 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 ə: : paw, pour, pore ə:3, bought ə:t, talk ə:k, door ə: or də, call ə:k'1, more ə: or ə:ə, gnaw, nor ə:1, law ə:; raw, roar ə:5, drawer (of a table, etc.) ə:4.

1 In the group al + consonant many speakers substitute ə for ə:, e.g. halt for ə:lt.
2 Four and pore have the variant pronunciation ə:ə.
3 Roar has the variant pronunciation ə:ə.
4 In the less common sense of “a person who draws”, the word is always
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war wa:, for, four, fore fa:, vault va:lt, thought thoe:t, sauce, source so:s, short jae, George d3j3, your jo:, hall hal.

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

441. ai is the regular sound of oi and oy; examples oil oii, boy boi, employer im’plaio4, royal royel or roil.

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 hytö, 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 aiəi ... with energetic motion of the lips.

A (THE VOWEL IN UP AP)

443. In pronouncing the vowel A 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.

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

444. A is one of the two "short" sounds of the letter u; examples cut kat, mutton ‘matu, hurry ‘hari. O has the sound A in a good many words; the principal are: among o’mang, Brompton ‘bramment6, come kam, comfort ‘kamfoot, company ‘kampé, compass ‘kampés, conjure (to do things as if by magic) ‘kandʒo-, constable ‘kanstóbl, done dan, front frant, frontier ‘frantjo7, honey ‘hani, London ‘landon, Monday ‘mandi, money ‘manj, monger -ma:ne, mongrel ‘maŋgrəl, monk mænk,

pronounced draː. Drawers, the article of clothing, is draːz (identical in pronunciation with draws).

1 For has also a weak-form fa, § 497. Four and fore have the variant pronunciation faa.
2 Source has the variant pronunciation sae.
3 Less commonly jae. There are also variants jae, jee.
4 Foreigners should be careful to make the distinction between the ble in employer im’pleo and the a:je in lawyer ‘lo:je.
5 With some the raising appears to be further forward than the back.
6 Now pronounced ‘brampton by many Londoners.
7 But conjure (to appeal solemnly to) is kan’dʒue.
8 Also ‘frantjo.
monkey 'mʌŋki, monik manθ, none nan, one wan (= won), once-wans, onion anŋən, pommel 'paml, some sam¹, Somerset 'saməsit, son san (= sun), sponge spandʒ, stomach 'stamək, ton tan, Tonbridge 'tanbrɪdʒ, tongue tɑŋ, won wan, wonder 'wandum; above ə'bav, cover 'kævə, covert 'kavət, covery 'kavl, dove dav, glove glav, govern 'gəvən, love lav, over 'avən, shove fəv, shovell 'favl, slovenly 'sləvnli; borough 'bɑrə, thorough 'θɑːrə, worry 'warə, other ə'də, brother 'brəðə, mother 'məðə, mother 'smaðə, nothing 'næθiŋ; dozen 'dæzn; colour 'kælə; twopence 'təpəns. Ou has the value ə in a few words; the principal are: courage 'kærɪdʒ, country 'kæntri, cousin 'kæzn, couple 'kapəl, double 'dæbl, enough ɪ'næf, flourish 'flərɪʃ, hiccough 'hɪkəp, nourish 'nərɪʃ, rough ɪ'f, southern ɪ'sæðən, southerly ɪ'sædəli, Southwark (London borough) ɪ'sædək², touch ɪ'tɛf, tough ɪ'f, trouble ɪ'træbl, young ɪ'jæŋ. Note also the exceptional words does ɪ'dæz⁵, blood ɪ'blæd, flood ɪ'flæd.

445. Foreigners generally replace this vowel by some variety of a (§ 404) or ə (§ 420), or by some variety of front rounded vowel, for instance, the half-open front vowel (phonetic symbol ɔ) heard in the French æv or æf, German ɔwəlf tsɔwəlf or tsɔwəlf⁴. Thus they commonly pronounce up as ap, up or ɔ. Those who replace a by some variety of ə often have great difficulty in distinguishing the sound from æ, making much, struggle (which should be matʃ, 'strægl) almost identical with match, straggle (which should be matʃ, 'strægl).

446. The correct pronunciation of ə 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 pɔʁ, German dɔʁt dɔrt, etc. (§ 431, note 1); it is also sometimes useful to start by unrounding the German ɔ: in wohəl vɔːl, and then to lower the tongue. If all efforts to obtain the precise sound a fail, the best substitute is a (§ 404), which bears a considerable resemblance to ə, and is actually used as a substitute for it in some English dialects (including London).

447. Words for practising the sound ə: sponge spandʒ, butter 'bætə, tug tɑŋ, dull dɔl, come kam, gun gan, money 'mæni, nothing 'næθiŋ, luck lak, trouble 'træbl, won, one wan, fuss ʌs, vulture 'vʌltə, thumb əm, thus ʌs, such satʃ, result ri'zɔlt, shut ʌt judge ʌʒadʒ, young ɪ'jæŋ, hurry ɪ'harı.

¹ This word has also a weak form sam, § 497.
² Southwark Bridge Road appears to be, however, more usually 'sauəwək- 'brɪdʒ rəʊd, Southwark Bridge is 'sædək'brɪdʒ or (less usually) 'sauəwək-'brɪdʒ.
³ This word has also a weak form ʌdʒ, § 497.
⁴ œ is obtained by adding lip-rounding to ə.
0 (THE FIRST ELEMENT OF THE DIPHTHONG IN go gou)

448. In pronouncing this sound the back of the tongue is raised considerably in the direction of the soft palate (though not so high as for the u-sounds, §§ 459, 467), but the tongue position is somewhat advanced from the full back position (fig. 86); the tongue is also probably slightly lower than the normal half-close position; the lips are slightly rounded (figs. 95, 97); the tip of the tongue is generally, though not necessarily, touching or almost touching the lower teeth; the lower jaw is moderately low in normal speech but not so low as in the case of ə, əː and ʌ. The formation of the English ə may be expressed shortly by defining it as a HALF-CLOSE BACK LAX ROUNDED VOWEL, SLIGHTLY ADVANCED (§§ 81, 76, 89, 88).

449. The sound ə constitutes the first element of the English diphthong ou.

450. The diphthong ou is the "long" sound of the letter o1; examples so sou, doe dou, home houm, noble 'noubl, roll roul2, bolt boul, post pou$t, both bou$th, only 'ounli, don't dount. ou is the regular sound of oa when not followed by r; examples road roud, toast toust (exception broad brou:d). Ow is pronounced ou in many words; examples know nou, sow (verb) sou3, growth grou$th. Ou is pronounced ou in the following words: dough dou, mould mould, moul$t moul$t, poultice poultis, poultry 'poultri, shoulder 'souldə, smoulder 'smouldə, soul soul, though əou. Note the exceptional words oh ou, brooch broutf, sew sou, and French words such as bureau bjou'rou.

451. The English vowel ə occasionally appears without a follow-

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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 lɔl 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 o or a. Thus November, obey, molest, scholastic, are often pronounced no'vem'bə, o'bei, mo'lest, skə'læstik, but the forms nou'vem'bə, no'vem'bə, ou'bei, a'bei, mou'lest, ma'lest, skalæstik, skəlæstik are also heard. Again going 'gouɪŋ, louver (comparative of low) 'louə may be pronounced goɪŋ, loə.

452. Foreigners generally replace the English diphthong ou by the pure vowel o: heard in the French côte koːt, German wohl voːl. 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 o: 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 o; the result is that the diphthong which they produce sounds too much like œu.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 loː)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” l (§§ 238, 239) as in old ould, whole houl, 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 œu, au, au, all of which may be heard in London. It is better to use

1 A diphthong of the type œu is used for œu in some forms of Cockney and in other dialectal varieties of English, but it cannot be recommended for foreigners.

2 Narrow transcription [lɔː].
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 donut, cold kould, go gou, motion 'mouʃu, no, know now, loaf louf, roll roul, won't wount, foe fou, vote vout, though ðou, sole, soul soul, zone zoun, show fou, joke dʒouk, yoke, yolk jouk, hope houp.

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 a'du:, do du:1, to tu:2, two tu:, who hu:;

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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 ta, § 497. Before vowels the word to (whether stressed or not) is generally pronounced tu.
who{m} hu:m, lose lu:z, move mu:v, prove pru:v, tomb tu:m. Ou has
the sound uː in some words, the principal being Brougham bruːm\(^1\),
routine ruː ti:n, soup suː p, crew kruː p, douche duː s, group gruː p,
rouge ruː z, route ruː t\(^2\), through θruː , uncouth an'kuː θ, wound (injury,
injure) wuː nd\(^3\), you juː , youth juː θ. uː (with or without a preceding j,
see rules in § 360) is also the usual sound of eu, ew and ui; examples
fœu d fuː d, new njuː , crew kruː ; suit sjuː t\(^4\), fruit fruː t. Note the
exceptional words beauty 'bjuː ti (and its derivatives)\(^5\) and shoe juː ;
canoe kə'nuː ; manoeuvre mə'nuː va.

461. The English long uː has about the same quality as the
normal French vowel in rouge ruː z (see, however, § 463). It differs
slightly from the corresponding German sound heard in gut guː 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 uː of Germans speaking English generally sounds somewhat
too deep in quality. This deep quality of uː is often very noticeable
when Germans pronounce the phrase how do you do? The correct
pronunciation is 'hau'djuː duː with the English variety of uː; Germans
generally say hau'djuː juː duː with the deeper German variety of uː.

462. This deep variety of uː is particularly objectionable in words
spelt with u, eu, eu, wi, etc., e.g. in music 'mjuː zik, produce (verb)
pro'djuː s, few fjuː , crew kruː . The matter is not so important in
the case of words spelt with oo, o, ou, e.g. in food fuː d, lose luː z,
soup suː p.\(^6\)

463. Many English people diphthongize slightly the sound uː,
especially when final. This diphthongization may be represented phono-
etically by uw: thus, shoe, few are pronounced juː, fjuː , or juw, fjuw.\(^7\)

464. It is better for foreigners not to attempt to diphthongize
the English uː, because any exaggeration of the diphthong is apt to
sound incorrect.

\(^1\) The noun brougham is bruː m or bruː m.
\(^2\) Also raut in route-march.
\(^3\) Wound from the verb wind, is waund.
\(^4\) Some English people pronounce this word suː t, but sjuː t is preferred by
the author.
\(^5\) Note that beautifully is usually 'bjuː tafli.
\(^6\) The reason for this distinction is that many English people make a dif-
fERENCE in pronunciation between uː represented by u, eu, eu, wi, etc., and uː
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 ð) in words spelt with u, eu, 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 § 846. The two values are related in the same way as the two values
of j, see note to § 367.
Some foreigners, and notably the Portuguese, are apt to make the English u: too lax.

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 uu:n, loose lu:s, lose lu:k, root ru:t, woo wu:, food fu:d, soup su:p, Zoo zu:, shoe ju:, you, yew ju:, who hu:, chew tsu:, June dzu:i, rule ru:l, rude ru:d, blue bu:l; pew pju:, beauty hju:ti, tune tju:n, dew dju:, cue, Kew kju:, music 'mjuzik, new nu:, lute lu:t (or lju:t), fur fju:, view vju:, sue sju:, presume prizju:m1, hew, hue, Hugh hju:.

THE ENGLISH SHORT u (THE VOWEL IN put put)

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).

u is one of the two "short" sounds of the letter u; example put put, full ful, bush bu:j, cushion 'kujin. Oo has the sound u when followed by k, as in book bu:k, look luk2, and in the following miscellaneous words: foot fu:t, good gu:d, hood (including the suffix -hood) hud, stood stud, wood wud, wool wul. In broom (for sweeping3), groom, room and soot both u and u: are heard, the u being probably the more usual in educated speech.4 Note the miscellaneous words bosom, "buzan, bouquet 'bukei, could kud, courier 'kuriə, should jud, wolf wulf, Wolverhampton 'wulvəhɑmptən (and a few other similar names), woman 'wumən, Worcester 'wustə, worsted 'wustid, would wud.5

Many foreigners, and especially the French, are apt to replace the lax u by the corresponding tense sound. The correct sound

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1 Pronounced by some prizju:m.
2 The only exception is the comparatively rare word speak spu:k.
3 In broom (plant), however, brum 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 wad, ad 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 qud, nook nuk, look luk, room rum, full
ful, book 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 fœə, pure pʃuə. 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 kʃuəris, duration dʃuərəʃən. The group our has
the value uə in tour tʊə and gourd ɡuəd.

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 pua) becoming
too much like puːr (or puːə). 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 diph-
thong uə is replaced by forms like œə, œə and even a: in many
words, also sometimes by œə or œ when the preceding sound is j, s
or ʒ. Thus it is by no means uncommon to hear poor, sure pro-
nounced as pœə, fœə, pœə, fœə or even paə, ʃə. There is no objec-
tion to the forms with œə, but the forms with œə and a: are not re-
commended for foreigners.2 Sure, during are pronounced fœə, ˈdʒœəɹŋ
or ˈdʒœəɹŋ by some; there is no objection to these forms.

475. Words for practising the diphthong uə: poor pʊə, tour tʊə,
door dʊə, gourd ɡʊəd, moor muə, truer trʊə3; pure pʃuə, endure
in'djuə, cure kʃuə, skweər skjuə, Mair mʃuə, lure lʃuə or lə,
fewer fʃuə4.

476. The lax u also occurs as the second element of the diph-
thongs au and ou (§§ 405 ff., 450 ff.).

1 The only exceptions are door də: or dəə and floor flə: or fləə.
2 Except in the case of the single word your, which is generally pronounced
jə: or jəə (less commonly jəə or jəə)
3 Also pronounced ˈtrʊə.
4 Also pronounced ˈʃjuəə.
CHAPTER XIV
THE MIXED VOWELS

477. There are two mixed vowels in English. They are represented in "broad" phonetic notation by the symbols ò and ø. For the definition of the term "vowel" see § 54; for the definition of the term "mixed" see § 78.

THE ENGLISH LONG ø: (THE VOWEL IN bird be: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 ø may be expressed shortly by defining it as a MIXED UNAROUND VOWEL, HALF-OPEN and SLIGHTLY RAISED.

479. ø: is the usual sound of stressed er, ir, ur and yr when final or followed by a consonant; examples her her, fern fær, fir fær, bird bæd, fur fær, turn tæn, myrtle mætəl. Ear followed by a consonant is generally pronounced ø:; examples earn ə:n, earth ə:θ, heard hæ:d. Or is generally pronounced ø: when preceded by w; examples work wə:k, world wə:ld. Our is pronounced ø: in adjourn ø:də:n, courteous kætəs⁴, courtesy kətəsɪ, journal ø:də:n, journey ø:də:n, scourge skɔ:dʒ. Note the exceptional words amateur əmə'tə:, attorney ø'tə:n, connoisseur ko'nɪsə, chauffeur ʃɔu'-fe:r⁵ (and various other words ending in -eur), colonel kə:nl. Year is pronounced jə: or jiə.

Fig. 104. The English long ø: (in bird) as pronounced in normal speech.

Fig. 105. The English long ø: (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 ø: properly, whereas true open vowels such as æ, æ, æ, or the English short ø, not only can be pronounced with the mouth wide open, but frequently are so pronounced. Compare the photographs of ø (fig. 104, 105) with those of æ, æ, ø (figs. 77, 78, 87, 88, 89, 90).
² When unstressed this word is often pronounced øː, hø or even ø.
³ Exceptions are beard bæd, heart hæ:t and hearth hæ:θ.
⁴ Also pronounced kætəs, kətəsɪ.
⁵ Also pronounced əmə'tə:, əmə'tʃuə, əmə'tʃuə.
⁶ Also pronounced ʃoufe.
480. The English long \( \alpha \) is a very difficult sound for most foreigners. They generally replace it by some variety of front rounded vowel such as \( \alpha \) or \( \varepsilon \), and in addition to this, they usually add some kind of \( r \)-sound at the end. The word word would will generally betray a foreigner. Germans usually pronounce it as \( \varepsilon r d \) or \( v e r t \).

481. The most important point to be borne in mind is that there must be no lip-rounding in pronouncing the sound \( \alpha \); 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 'stærɪŋ, § 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 \( \alpha \). 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 \( \alpha \) 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 \( k\alpha:k\alpha:k\alpha: ..., g\alpha:g\alpha:g\alpha: ... \) keeping the tip of the tongue against the lower teeth.

483. Some foreigners are apt to make the sound \( \alpha \) too open, or to retract the tongue towards the \( a \) 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 \( \alpha \) is very similar in quality to the variety of \( \alpha \) heard in the second syllable of the German word Gabe 'gæ:be (stage pronunciation). This fact may be utilised in learning to pronounce the English \( \alpha \).

485. It is very helpful for all foreigners, and particularly for Germans, to practice energetically the exercise \( u\alpha:u\alpha: ... \) 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, \( w\alpha: \) and \( w\varepsilon: \) (besides an unstressed form \( w\varepsilon: \)). The word girl is usually pronounced \( g\varepsilon:1; g\varepsilon:1 \) and \( g\varepsilon:1 \) are also frequent, especially in the speech of ladies. Foreigners are recommended to use the forms \( w\varepsilon: \), \( g\varepsilon:1 \).

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1. \( \alpha \) is a rounded \( \varepsilon \); \( \varepsilon \) is a rounded \( \alpha \). \( \alpha \) is the sound of \( eu \) in the French neufl nœfl and of \( \varepsilon \) in the German zwölf ts\\(v\\)elf or ts\\(v\\)elf. \( \varepsilon \) is the sound of \( eu \) in the French peu p\\(e\\) and of \( \varepsilon \) in the German hören 'hœr\(e\)nu\(en\).
487. Words for practising the long \( \text{ə} \): pearl \( \text{pə:l} \), bird \( \text{bə:d} \), turn \( \text{tə:n} \), death \( \text{deəθ} \), curb, herb \( \text{kə:b} \), kernel, colonel \( \text{ˈkərnl} \), girl \( \text{ɡə:l} \), (see § 486), myrrh \( \text{mər} \), nurse \( \text{nə:s} \), learn \( \text{lə:n} \), word \( \text{wə:d} \), fur, fer \( \text{fər} \), verse \( \text{və:s} \), thirst \( \text{θə:st} \), sir \( \text{sə} \), deserve \( \text{diˈzə:v} \), shirt \( \text{ʃə:t} \), journey \( \text{ˈdʒə:nı} \), yearn \( \text{jə:n} \), hurt \( \text{hə:t} \).

THE ENGLISH SHORT \( \text{ə} \)

(The unstressed vowel in \( \text{china \text{'tʃainə}} \), etc.)

488. In pronouncing the average English \( \text{ə} \) 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 \( \text{ə} \). The sound gives no palatogram. The formation of the average \( \text{ə} \) 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: collar \( \text{ˈkələ} \), bitter \( \text{ˈbɪtə} \), actor \( \text{ˈækə} \), cupboard \( \text{ˈkʌbəd} \), honour \( \text{ˈhənə} \), murmur \( \text{ˈmərmə} \), about \( \text{əˈbaut} \), china \( \text{ˈtʃainə} \), pavement \( \text{ˈpɛvəmənt} \), horrible \( \text{ˈhərəbl} \), admit \( \text{əˈdmit} \), consider \( \text{ˈkənˈsɜrd} \), pronounce \( \text{prəˈnɔːns} \), forget \( \text{ˈfɔrˈget} \), success \( \text{ˈsɛksəs} \), upon \( \text{əˈpʌn} \), gentleman, gentlemen \( \textˈdʒentləmən} \), aftercards \( \textˈaftərkwɔːdz} \), method \( \textˈmeθəd} \), picture \( \textˈpɪktʃə} \), famous \( \textˈfɛiməs} \), centre \( \textˈsentə} \), particularly \( \text ˈpərˈtɪkjuˌlaɪ} \).

490. The sound \( \text{ə} \) 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 \( \text{ˈbɪtə} \)) than in other cases (as in \( \textˈbaut} \)). The average sound is formed as described in § 488.6

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1 Colonel is the only word without an \( \text{r} \) in the spelling in which the sound \( \text{ə} \) is used.
2 There is also a weak form \( \text{əə} \), § 497.
3 Also pronounced \( \textˈhərəbl} \). 4 There is also a weak form \( \textəˈpʌn} \), § 497.
5 In \( \text te}, \text do}, \text do} (the weak forms of \( \text to}, \text do}, \text for}, \text the} the \( \text{ə} \) is not really final, the words being always closely connected with what follows. Consequently these weak forms always have the closer variety, of \( \text ə \).
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 aˈbaut sounds rather like eˈbaut, advancement aˈdˈvaːnsmənt sounds too much like edˈvaːnsment.

493. On the other hand when the vowel letter is followed by r in the spelling (as in bitter ˈbitə, harbour ˈhɑːbə), Germans usually make the sound too open and too far back, the result being that it sounds rather like the English ə (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 a (§ 413). The pronunciations ˈbitə, aˈbaut are not very far removed from the correct forms ˈbitə, aˈbaut.1

494. It may also be found helpful to remember this resemblance of ə to a in acquiring the pronunciation of the diphthongs iə, uə, uə. The words pier piə, pair pəə, poor pəə, sound very like piə, pəə, pəə. Foreigners can often improve their pronunciation of əə by taking care that the mouth is more widely open for the ə than for the e.

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 aˈbuk; at by itself is pronounced ət, but at once, at all are pronounced əˈtwans, əˈtwəːl; the by itself is pronounced ði:, but the book is ðəˈbuk; to by itself is pronounced tuː, but to-day, together are taˈdei, taˈgeðə.2 Two and two are four is not pronounced ˈtuːandˈtuːəːfoː (which is the sort of form most foreigners seem to aim at) but is pronounced ˈtuːəntˈtuːəːfoː or ˈtuəntˈtuərəʊ. Away from the city is pronounced əˈweɪfrəmˈdəʊsi, I should have thought so is pronounced aˈʃədəvˈθəːtson.

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.

1 Many English people actually use ə for ə when final, pronouncing bitter, bister, clever as ˈbita, ˈbata, ˈkleva. There is no objection to this pronunciation.
2 Less commonly tuˈdei, tuˈgeðə.
3 Note that the words not not, on on, then ən, when hwen do not figure
<table>
<thead>
<tr>
<th>Strong form</th>
<th>Weak form</th>
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<tbody>
<tr>
<td>a</td>
<td>ə</td>
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<td>am</td>
<td>əm (also m)</td>
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<td>an</td>
<td>ən (occasionally n)</td>
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<td>and</td>
<td>ənd (also nd)</td>
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<tr>
<td>are</td>
<td>ə (ər occasionally also r&lt;sup&gt;1&lt;/sup&gt;, before vowels)</td>
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<td>as</td>
<td>əz</td>
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<td>at</td>
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<td>but</td>
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<td>by</td>
<td>*baθ (before consonants only)&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>can (auxiliary verb)</td>
<td>kæn (also kn, ky)</td>
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<tr>
<td>could</td>
<td>kəd</td>
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<tr>
<td>do (auxiliary)</td>
<td>de (also d&lt;sup&gt;3&lt;/sup&gt;)</td>
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<tr>
<td>does (auxiliary)</td>
<td>dəz</td>
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<td>for</td>
<td>ə (rarely fo) (far or for before vowels)</td>
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<td>from</td>
<td>from</td>
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<tr>
<td>had (auxiliary)</td>
<td>hæd (also d)</td>
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<td>has (auxiliary)</td>
<td>hæz (also z)</td>
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<tr>
<td>have (auxiliary)</td>
<td>hæv (also v)</td>
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<tr>
<td>her</td>
<td>ə (hər before vowels)</td>
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<tr>
<td>mə'am</td>
<td>mæm (also m)</td>
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<tr>
<td>many</td>
<td>*məni&lt;sup&gt;4&lt;/sup&gt;</td>
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<td>must</td>
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<td>of</td>
<td>əv (occasionally ə)</td>
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<td>or</td>
<td>ə (ər before vowels)</td>
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<tr>
<td>per</td>
<td>ə (pər before vowels)&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>saint</td>
<td>sænt (or sænt)&lt;sup&gt;7&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

In this list. See § 504. Not has of course a weak form nət, but there is no form nət in Southern English.

<sup>1</sup> Example the shops are all shut ə'ʃɔps'ro:l'fɔt.
<sup>2</sup> Some use a weak form bɪ before vowels; bɪ 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 'θr:bi:'tu: (the fraction 3).
<sup>3</sup> An example of do reduced to d is the first do in how do you do 'hændʒa:..
<sup>4</sup> Thus how many more (normally 'həuməni'mɔ:) is sometimes reduced to 'həuməni'mɔ: or even 'həumni'mɔ:.
<sup>5</sup> As in per contra 'pə:kɔntrəl.
<sup>6</sup> As in five per cent per annum 'fælvə'sɛntpə'rənəm.
<sup>7</sup> As in Saint John sænt'dʒɔn. Some use a weak form sænt.
<table>
<thead>
<tr>
<th>Strong form</th>
<th>Weak form</th>
</tr>
</thead>
<tbody>
<tr>
<td>shall</td>
<td>ðæl</td>
</tr>
<tr>
<td>should</td>
<td>ðud</td>
</tr>
<tr>
<td>sir</td>
<td>sør (sør before vowels)</td>
</tr>
<tr>
<td>some</td>
<td>ðæm</td>
</tr>
<tr>
<td>than</td>
<td>ðæn</td>
</tr>
<tr>
<td>that (conjunction or relative pronoun)</td>
<td>ðæt</td>
</tr>
<tr>
<td>the</td>
<td>ði:</td>
</tr>
<tr>
<td>them</td>
<td>ðæm</td>
</tr>
<tr>
<td>there</td>
<td>ðæa (ðær before vowels)</td>
</tr>
<tr>
<td>time(s)</td>
<td>tæm(z)</td>
</tr>
<tr>
<td>to</td>
<td>tæ</td>
</tr>
<tr>
<td>upon</td>
<td>ðæn</td>
</tr>
<tr>
<td>was</td>
<td>ðæ</td>
</tr>
<tr>
<td>were</td>
<td>wæ:⁵ (wær before vowels)</td>
</tr>
<tr>
<td>would</td>
<td>wæd</td>
</tr>
<tr>
<td>your</td>
<td>jæ:⁶ (jær before vowels)</td>
</tr>
</tbody>
</table>

498. There are further many words which take weak forms when they occur as the second element of a compound word. Such are

<table>
<thead>
<tr>
<th>Strong form</th>
<th>Weak form</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>berry</td>
<td>ðeri or ðri</td>
<td>gooseberry, guzberi or guzbri</td>
</tr>
<tr>
<td>land</td>
<td>ðænd</td>
<td>Scotland, skotland</td>
</tr>
<tr>
<td>man</td>
<td>ðæn</td>
<td>gentleman, ðgentilæn</td>
</tr>
<tr>
<td>men</td>
<td>ðæn</td>
<td>gentleman, ðgentilæn</td>
</tr>
<tr>
<td>most</td>
<td>ðæst or ðæst</td>
<td>topmost, ðæpmoust or ðæpmost</td>
</tr>
</tbody>
</table>

¹ Used in titles, e.g. Sir John Moore sa'dzænmua, Sir Edward Clarke sa'redwæd'klærk.
² Before vowels ði.
³ As in the first time I went there ðæ'stæmaíwentæðæ or ðæ'stæmaíwentæðæ, three times four are twelve 'ðri:tainz'sɔ:ra'twelv or 'ðri:tomz-'fɔ:ra'twelv.⁴
⁴ Note however, that tu is regularly used before an optional h; thus tu would be used in from horizon to horizon from ho'raiztæðæ'raizn even by those who pronounce the h. tu may also be used before consonants in other cases for the sake of clearness.
⁵ wæ is also heard and is the form generally aimed at by foreigners; wæ: is, however, preferred by the author.
⁶ Less commonly jæ or joe (jær or jor before vowels).

Jones, English Phonetics
Chapter XIV. The Mixed Vowels

<table>
<thead>
<tr>
<th>pence</th>
<th>Strong form</th>
<th>Weak form</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>pens</td>
<td>-pens</td>
<td>twopence</td>
<td>'tapons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fivopence</td>
<td>'faifpons</td>
</tr>
<tr>
<td>penny</td>
<td>peni</td>
<td>-pni or -pni</td>
<td>halfpenny 'heipni or 'heipni</td>
</tr>
<tr>
<td>shire</td>
<td>faier (faier</td>
<td>-fæ (or -fia)</td>
<td>Devonshire 'devnæ or 'devn-</td>
</tr>
<tr>
<td></td>
<td>before vows-</td>
<td>(-fær or -fær</td>
<td></td>
</tr>
<tr>
<td></td>
<td>els)</td>
<td>before vows-</td>
<td>fiæ.</td>
</tr>
</tbody>
</table>

499. Note also the weak forms of board, pan, sense, where in cupboard 'kabéd, saucepan 'sæ:spæn, nonsense 'nansæns, anywhere else 'enihwæ'rels or 'enihwæ'rels.

500. The following comparisons are instructive:

- company 'kampæni but companion kæmpænjæn
- yard ja:d but vineyard 'vinjæd
- board bo:d but cupboard 'kabéd
- present (verb) pri:zent but present (noun, adj.) 'prezænt
- august (adj.) 'æ: gast but August (month) 'æ: gast
- chase tæis but purchase 'pær:tæs.
- chronology kro:nælædgi but chronological kro:nælædgi:kl

501. The proper use of the weak vowel æ 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 æ correctly in such sentences as æ'welfram'dè'siti, aij'ved'væ:tsou, that it is often advisable to practise leaving out the vowels of the unimportant syllables altogether wherever possible: thus æ'welfr'mô'siti, aij'dv'-væ:tsou. 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 æ may not be omitted, viz. when followed by a nasal consonant and (i) preceded by another nasal consonant, as in woman 'wumæn, German 'd3æ:mæn or (ii) preceded by the group mb or nd, as in London 'lændæn. Germans are apt to drop out the æ in these cases and to pronounce the words wunn (or wumn), 'd3æ:mn (or 'd3æ:mn), 'landu (or 'lændnu or even 'lænn with double nasal consonant).

504. In the exceptional cases of the words not, on, when and then the vowel is never reduced to æ 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 §§ 409—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 'mizərəbl should aim rather at saying 'mizrəbl. Similarly consequence should be 'kɔnsikwəns (almost 'kɔnskwəns) and not 'kənsekwəns; afterwards, successful, preferable may be pronounced 'əftəwdz, sk'sesfl, 'prefərəbl.

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 ë, œ, ô, ō (or ɔ) (which are approximately the nasalized forms of the normal e, œ, u, o or ɔ) heard in vin vœ, sans sœ, bon bœ (or bɔ), un œ. 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 dʒəm, hænd, wount; the Portuguese regularly pronounce the English word tense (which should be tens) as tɛns or even təs. The Dutch and many South Germans have a similar ten-

¹ Not is, however, reduced to nt in don't dount, couldn't kudnt, mustn't mənt, 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 ziːziː..., zuːzuː... 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..., uono..., iaia..., uouo... 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 kəm, cane kæn, home houm, time taim; then dən, ran reən, man mæn, on on, laun løu, one wən, alone oˈloun, wine wain, town taun, coin kən; end end, hand hænd, pond pənd, warned wənd, under əndə, owned əʊnd, find faiənd, found faʊnd, joined dʒɔiənd.

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 t and d.

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 *houd*) as *hard* or *hard*, *door* (normal English *dor*) as *dor*, *pearl* (normal English *p9:l*) as *p9:l* or *p9:rl.*

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. The approximate tongue position of the vowel *a* 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, *houd*, *dor*, *p9: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 *t*, *d*, 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 fie*, *fair fea*, *far fu*; *four fa*; *poor pue*, *fur*, *for fa*; *fierce fleas*, *scarce skews*, *part pu:t*, *board b9:d*, *cures kjuez*, *learnt le: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

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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 *ã*, *¢*, 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 'dʒæksbjʊə, that is all right 'ɔətsəl'ræɪt. Other examples are used in the expression used to (juːsttu or juːstu), fivepence 'feɪpfuns (cp. five fair), the forms witə, bretə which are common variants of widθ, bredθ (width, breadth), aɪʃfθoːtsəu a rapid colloquial form of aɪʃdəvθoːtsəu (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 cuff's kəfs, sɪts 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 triːz, plays pleiz, rushes ˈrʌʃiz. 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 smɔːl, snuff snɑːf, place pleɪs, sweet swiːt, try træɪ, pew pjuː; 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 smɔːl, snɑːf, pleɪs, swiːt, træɪ, pjuː.

523. An assimilation of a similar kind occurs when tj, sj become tj, s (§§ 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 'mɛtsɪn,
*anecdote* (normal English 'ænɪkdət) rather like anəq'dæt,
*absurd* (normal English əb'sɔːd) as ap'sɔːnd (compare the French absurde ap'syʁd),
*absolute* (normal English 'æbsəluːt or 'æbsəljuːt) as ap'sɔːlt,
*plenty of time* (normal English 'plɛntɪəv'təɪm) as plen'tɪəf'taɪm,
*this book* (normal English əˈɪsˈbʌk) as əˈɪzˈbʌk,
*like that* (normal English laɪkˈdæt) as laɪəˈdæt.
They should also note the English word *observe* (ob'zə:v) which they generally pronounce *əp'ser*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 *ˈpiktʃər*, grandeur *ˈgrændʒər*, which are derived from older forms *ˈpiktʃuər*, *ˈgrændʒuə*, which in their turn come from still earlier forms *ˈpiktʃuər*, *ˈgrændʒuər*), and the coalition of *sj*, *zj* (or *sli*, *zli*) into *ʃ*, *ʒ* (as in nation *ˈnɛʃən*, vision *ˈvɪʒən*, which can be shown to have been pronounced *ˈnæːʃən*, *ˈvɪʒən* in Shakespeare's time). Fig. 110 shows how *t* (or *d*) has caused the following *j* to become *ʃ* (or *ʒ*).

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 *ʒ, fig. 61*) and *ʃ* (5) (figs. 54, 55).

527. Foreigners often have difficulty in determining in what cases assimilations from *j* to *ʃ* (5) 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 *ˈouʃən*, assure *ˈəzər*, soldier *ˈsəulʤər*, pension *ˈpensən*, pressure *ˈprɛʃər*, conscience *ˈkənʃəns*, partial *ˈpəʃəl*, vitiate *ˈvɪʃətə*, anxious *ˈæŋkərəz*, usual *ˈjuːʒərəl*, righteous *ˈrʌtʃəz*, natural *ˈnætʃərəl*, question *ˈkwɛstʃən*. On the other hand the assimilation is not made in mature *ˈmətʃəʊr*, endurance *ˈɪndərərəns* (in which the syllables in question are stressed), or in aperture *ˈæpətʃər* (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 *ˈsɛstəl* not *ˈsɛstʃəl*, plenteous is *ˈplɛntʃəs* not *ˈpləntʃəs* (in fact *-tʃ-* is used in all words in *-teous* except righteous). Sure *ʃər* and sugar *ˈʃʊgər* 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 *ˈhɔːʃuː* not *ˈhaːʃuː*; does she which is generally *ˈdəzʃəl* not *ˈdæzʃəl*; of course she does which is generally *əvˈkɔːʃʃədəz* not *əvˈkərʃədəz*. Just shut the door is often pronounced colloquially *ˈdəzʃəl* *ˈʃʌtədəz*. In tortoise-shell *ˈtɔːtʃəl* the final consonant of tortoise *ˈtɔːtɔs* has completely disappeared (the modern pronunciation having no doubt been preceded by an intermediate form *ˈtɔːtʃəl*).
A striking case of assimilation in which the lips are affected is ai’dounb’blivit, a common colloquial form of ai’dounthbi’livit (I don’t believe it).

CHAPTER XVIII

LENGTH

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.

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.

The rules of length of English vowels are as follows.

Rule I. The vowels i:, a:, o:, u:, e:, 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 ha:d, hoard ha:d, food fu:d, heard ha:d are longer than the vowels in hid hid, head hed, lad laed, rod ro’d, bud bad, hood hud; similarly the vowels in heat hi:t, heart ha:t, short fa:t, hurt ha:t are longer than the vowels in hit hit, get get, hat het, hot hot, hut hat, put put. In consequence of this rule it is customary to designate the vowels i:, a:, o:, u:, e: as the "long" vowels, and the remaining English vowels as the "short" vowels.

The diphthongs are of the same length as the "long" vowels.

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.

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 sta:f, sought, sort so:t, use (subst.) ju:s, scarce ska:s, height hait, house

1 See however § 543.  
2 See however § 542.
(subst.) haus, are shorter than those in star star, saw, sore so, you, you ju:, scare sko:, high hai, how hau, starve stu:v, sawed, sword so:d, use (verb) ju:z, scares sko:z, 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:lt is shorter than that in fall fal: or that in falls fal:z; the ɔ: in learnt lɔ:nt is shorter than that in learn lɔ:n or that in learns lɔ:ns.

539. Rule IV. The "long" vowels (and diphthongs) are also shortened when immediately followed by another vowel. Thus the i: in seeing ˈsik:ɪŋ is shorter than the i: in see si: or that in seen si:n, the ɔ: in drawing ˈdrɔ:ɪŋ is shorter than the ɔ: in 'draw drɔ: or that in draws dra:z'.

540. u: is often reduced to the lax u under these circumstances; thus ruin may be pronounced either 'ru:in (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 ˈpleɪə (with a shortened ei) or pleə (not pleə)\(^2\), poetry, lower (adj) are pronounced ˈpouɪtrɪ, ˈloun (with shortened ou) or ˈpouɪtrɪ, ˈloʊ.

541. Rule V. The "long" vowels (and diphthongs) are shorter in unstressed syllables than in stressed syllables. Thus the ɔ:s in audacious ˈɔ:diʃəs, cardboard ˈka:rdbo:d are not quite so long as the ɔ:s in audible ˈɔ:dbl\(^4\), board ˈboːd; the ɔ: in carnation ˈka:rnəʃən is not quite so long as the ɔ: in scarlet ˈskærəlt; the ai in idea ˈaɪdə, the ou in fellow ˈfoʊlə, the ə in duration ˈdjuərəˈneɪʃən, are shorter than the same diphthongs in idle, ˈaɪdəl, below ˈbiːləu, endure ˈɪndjʊə.

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 la:d, pad pæd, etc. Long æ: may also be observed with many speakers in a number of other words e.g. man mæn or mæn, jam (subt.) dʒæm or dʒæm, bag (subt.) bæg or bæg (more usually the latter). Long æ: is most frequently

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1 In drawing-room (salon) the first vowel has become quite short and forms a diphthong with the i, thus ˈdraɪˈrʊm. Drawing-room meaning a room for drawing is pronounced according to the rule ˈdraɪˈrʊm with a somewhat shortened ɔ:.

2 Note that prayer (supplication) is pronounced ˈpreɪə, while prayer (one who prays) is ˈpreɪə or ˈpreɹə.

3 Some say ˈpoɪtɪɹɪ, but this form is not recommended.

4 Also pronounced ˈɔ:dbl.

5 Foreigners generally pronounce this word incorrectly with the stress on the first syllable.

6 Also pronounced ˈfelo.
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'tizut'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'ainti: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 ðeax'noonbødi'ðæ is not nearly so long as
that in there is no time ðeax'noù'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:

\[
\begin{align*}
\text{'eiti:n'ainti:n'twenti} & \quad \text{'eit'nain'ten} \\
\end{align*}
\]

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:

\[
\begin{align*}
\text{ðeax'noonbødi'ðæ} & \quad \text{ðeax'noù'taim} \\
\end{align*}
\]
The **nou** in the second case takes up practically as much time as the entire word **noubadi** 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 **s壮大** take up as much time as the five syllables **mi:di:jet-**liifjue; the syllable **s壮大** accordingly occupies a much longer space than the syllable **mi:**. It is easy to hear that the **i** in the syllable **mi:** is extremely short and that the lengthening of the syllable **s壮大** is distributed over the sounds **a** and **t**. In the sentence *you can come with ME if you are ready ju:kam’senti:mi:ifju:’redl*, the length of the word **mi:** is not much less than the total length of the three syllables **mi:di:jetli** 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 ‘ab:bitreit*, we should find that the whole of this word would be compressed into almost the same space as the monosyllable **s壮大**.

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** **sin** is longer than the **ns** in **seen, scene si:n** and **sign sain**.

554. Rule VII. Liquids are longer when followed by voiced consonants than when followed by breathed consonants. Thus the **n** in **wind wind** is longer than that in **hint hint**, the **l** in **bald bal:ld** is longer than that in **fault fa:lt**, the **m** in **number nambu** is longer than that in **jumper ’d3ampa**.

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 ’d3ækit**), the **p** in **description dis’kripfn**.

556. Liquid consonants are usually very long when immediately followed by an unstressed syllable beginning with **j** or **w**, as in **million ’miljən, somewhere ’səmweə** (compare **sillier ’siliə, summer ’səmə**).
557. Consonants following stressed short vowels are sometimes very much lengthened for the sake of emphasis, e.g. splendid *splendid, a little more *'lɪtəl'maː; I never heard such a thing at'nevəˈhɑːd,sætʃəθɪŋ, numbers and numbers of things *'nɑːm'bɜːzn 'nɑːm'bəzoʊθɪŋ. Similar lengthening occasionally occurs after “long” vowels, e.g. it was awfully good *ɪtweəz'ɔːlɪd.

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 pork *pʊ:k, use (subst.) *juːs, fruit *fruːt, nation *'neifn, mouth *maʊn, right *ræt, roast beef *'rɒʊstbiːf. 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 *kæm 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 (siː, tuː).

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 *peˈpʰər instead of *peɪpər.

563. The French also have a tendency to shorten the long vowels iː and uː, when followed by b, d, g, m, n and l, as in tube *tjuːb, food *fʊd, league *liːɡ, tomb *tʌm, fifteen *ˈfɪfтиːn, feel *fiːl.

564. Words for practice: (for rule I) seen *siːn, sin *sən, harm *hɑːrn, ham *hæm, short *ʃɔt, shot *ʃɔt, call *kɔːl, doll *dɔːl, wall *wɔːl, quality *ˈkwɒlɪti, pool *pʊl, pull *pʊl, root *rʌt, foot *fʊt; (for rule II) see *siː, say *siː, sigh *sai, sow (pig) *sɔː, far *fɔː, saw *sɔː, sore *sɔːr, soar *sɔː; sow (verb) *sɔʊ, too *tuː, two *tuː, lead (conduct) *lɪd, laid *lɛid, lied *lɛid, loud *laʊd, lard *lɑːd, laud, lord *lɔːd, load *lɔʊd, lose *luːz; geese *ɡiːs.

1 The usual German pronunciation of all right (normal English ‘ɔːrɪt) 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 hous, pass pas, horse ha:s, toast to:st, loose lu:s; (for rule III) paint point, aunt, aren’t a:nt, pint pain, ounce auns, taut to:nt, don’t dou:n.

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

\[
\begin{align*}
\text{'riŋðə'bel} & \quad \text{fə:stə'vəl} & \quad \text{hwətsə'taim} \\
\text{hi:'routtə'də'sekətrı} & \\
\end{align*}
\]

566. However well the sounds may be pronounced the usual French rhythm

\[
\begin{align*}
\text{fə:stə'vəl} & \quad \text{hwətsə'taim} \\
\end{align*}
\]

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:, u:, ə:, ə:, and ə: 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 fo:lt, seeing 'si:ɲ, audacious ə:deɪfəs might be written in narrow transcription [si:t] [fo:lt], [si:ɲ], [ə:deɪfəs]; hide haid, scare(s) skær(z) might be written in narrow transcription [haid], [skær(z)] as distinguished from height hait (narrow [hait]), scarce skær.

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. 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: 3. 3. 5.

575. Such accuracy is not necessary for practical purposes; it is generally sufficient to distinguish two degrees only, stressed and un-stressed. Stressed syllables are marked in this book by placing immediately before them, thus, father 'Tu:do, arrive o'raiiv, opportunity apo'tju:niti, where are you going? 'hwæəroju:'gouig.

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'neifn.

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 eksamì'neifn). The same thing applies to peculiarity pi.kjùli'æriti, administration ad minis'trejìn, familiarity fo.mili'æriti, antagonistic aø.teə'nistik, superiority sjù.piari'æriti, tuberculosis tju: bæ.kjù'lousis (compare aristocratic ærista'kratik, modification modif'keifn).

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.

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. 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 so:tif'keifn it means the “act of certifying” or “fact of being certified”; pronounced so: tif'keifn (or so,tif-) 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 prefix\(^1\) not having a distinct meaning of its own are generally stressed on the second syllable.

Examples: away o'wel, absurd o'be:d, address (subst. and verb) o'dres, allow o'lau, appeal (s. and v.) o'pil, arrive o'raw, ascent o'sent or o'sent, become bi'kan, confuse kon'fju:z, coerce kon'as, collapse (s. and v.) ko'leps, compose kam'pouz, correct (adj. and v.) ka'rekt, defence di'fens, disclose dis- 'klouz, diverge dai'vo:d, diffuse (v.) di'fju:z, diffuse (adj.) di'fju:z, emerge i'ma:d, excuse (s.) iks'ku:s, excuse (v.) iks'ku:z, effect (s. and v.) i'fekt, forgive fo'giv, forego fo'gou, inflame in'feim, immense i'mens, employ in'pil, endure in'dju:ə, obtain ob'tein, omit ou'mit (also pronounced o'mit, a'mit), occur a'ka:, offend o'fend (also pronounced o'fend), oppress a'pres (also pronounced o'pres), perform pə 'fɔ:m, precise pri'sais, pronounce pro'nouns, receive ri'si:v, select (adj. and v.) si'lekt, sublime so'blaim, success sak'ses, supply (s. and v.) se'plai, sustain saes'tein, surprise (s. and v.) sa'pralz, translate tru:n'sleit or træns'leit, uphold ap'houl'd, within wi'din.

581. There are a great many exceptions, of which the following are the principal:

I. Substantives: a'absess 'ab'sbis, absence 'æbəns, accent 'æksnt, access 'æk'ses, adjunct 'ædʒa:k, advent 'ædvənt or 'ædvənt, adverb 'æd've:b, affluence 'əflju:nəs, aspect 'espekt, cohort 'kɔʊhət; collect 'kolekt, college 'kɔlɪdʒ, comment 'kəmənt, commerce 'kɔməs, commune 'kɒmjən, compact 'kɒmpæk,t, compass 'kæmpəs, compound 'kɒmpaund, compress 'kɒmprəs, do'klave 'kʌnlɪkləv or 'kʌŋklev, concourse 'kɔnskɔ:s, concrete 'kæŋkri:t or 'kɒnkrɪt, conduct 'kɒndəkt, confines 'konfləns, conflict 'kənfʌktli, congress 'kəngrəs, conquest 'kɒŋkwest, conscience 'kənˈfʌns, conscript 'kɔnskript, console 'kɔnsəl, consort 'kɒnsɔ:t, consult 'kənˈsʌlt, contact 'kɒntəkt, contest 'kənˈtest, context 'kɒntɛkst, contour 'kɑːntuə, contract 'kɒntrækt, contrast 'kɔntrəst or 'kəntrəkt, conven't, converse 'kənˈvɔːs, convert 'kənˈvɔːt, convict 'kənvikt, convoy 'kɔnvɔɪ, decrease 'diː'kraːs, deluge 'dɛldʒ, desert 'dɛzət, detail 'dɪˈtel, discard 'dɪskɔːd (also pronounced di'ku:d), discard 'dɪskɔːd, discount 'dɪskɑːnt, distance 'dɪstɑːns, district 'dɪstrɪkt, effort 'ɛfət, egress 'ɪɡrɛs, ensign 'esnən, entrance 'entrəns, envoy 'ένβολο, escort 'esˈkɔ:t, essay 'esˌɛl, excerpt 'eksˈpɛkt, exile 'ɛksəl or 'ɛgzɔl, exit 'eksɪt, exist 'ɛksɪnt, expert 'ɛksˈpɜːrt, export 'ɛkˈspɜːrt, all substantives beginning with fore- (e.g. foresight 'fɔrˌsaɪt), forfeit 'fɔrˈfɪt, impact 'ɪmpækt, import 'ɪmˈpɔːrt, impost 'ɪmˈpɔːst, impress 'ɪmˈpɜːs, imprint 'ɪmˈprɪnt.

C. Considerations. 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- (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 o'rai.

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'kra:s, diˈkra:s.

4 Pronounced by some diˈtell.
print, impulse 'impals, incense 'insens, income 'inkam, index 'indeks, infant 'infont, influence 'influans, influx 'inflaks, ingress 'ingres, innate 'inmeit, inroad 'inroud, insect 'insek, insight 'insalst, instance 'instans, instant 'instant, instep 'instep, instinct 'instiit, insult 'insalst, invoice 'insalvs, object 'obdžikt, oblong 'obloŋ, obverse 'obvaːs, perfume 'pɑːfjum, permit 'pɑːmit, pervert 'pɑːvət, precept 'prɪːsept, precinct 'prɪˈslɪt, preface 'prefis or 'prefes, prefix 'prɪːfiks, prelude 'prɛljuːd, premise(s) 'prɛmɪs(ə), presage 'presidz, presence 'prexəns, present 'prezət, pretext 'priˈtekst, probate 'prəʊbit or 'prəʊblət, problem 'prəʊbləm or 'prəʊblem, proceeds 'proʊs:kids, process 'proʊsəs, produce 'prəʊdʒuːs, product 'proʊdəkt, profile 'proʊfl, profit 'prəʊfl, progress 'proʊŋgres, project 'prəʊdʒekt, prologue 'prəʊləʊɡ, promise 'prəʊmɪs, pronounce 'prəʊmənən, prospect 'prəʊsəkpt, protest 'prəʊtest, proverb 'prəʊvəb or 'prəʊvəb, province 'prəʊvəns, provost 'prəʊvəst, record 'rekəd, refuse 'rɪˈfjuːs, refuse 'rɪˈfjuːs, regress 'rɪˈgres, rescript 'rɪˈskrɪpt, respite 'rɪˈspait or 'rɪˈspəɪt, subject 'sæbdžikt, subsoil 'sæbsəl, substance 'sæbˈtənt, suburb 'sæbəb or 'sæbəb, subway 'sæbweɪ, succour 'sakəʊ, suffrage 'səfredʒ, surname 'sæmən, surplus 'səˈplʌs or 'səˈplʌs, surplus 'səˈplʌs, survey 'səˈveɪ, transcript 'trəˈskrɪpt, transcribe 'trəˈskrɪpt, transfer 'trəˈfɛrs, traverse 'trəˈvɛrs, upland 'ʌplænd, uproot 'ʌprɔːr, upshot 'ʌpʃət, upside 'ʌpsaɪd, upstart 'ʌpˈstɑːt.

II. Adjectives: abject 'æbdʒekt, absent 'æbsənt, adverse 'ædvəs, complex 'kɒmplɛks, concrete 'kɒnˈkrɪkt, conscious 'kɒnʃəs, constant 'kɒnˈstɑːnt, contribute 'kɒnˈtriːt, converse 'kɒnˈvɜːs, convex 'kɒnˈveks (also pronounced 'kɒnˈveɪks and 'kɒnˈveɪks), desert 'dɛzərt, distant 'dɪˈstænt, extant 'ɪkˈstɑːnt (also pronounced 'ɪkˈstɛnt), foremost 'fɔːˈmoust or 'fɔːˈmɑːst, impious 'ɪmpjoʊʃ, inland 'ɪnˈlænd, inmost 'ɪnˈməʊst, instant 'ɪnˈstɑːnt, oblong 'əbˈloŋ, perfect 'pəˈrɛkt, present 'prɛzənt, previous 'prɪˈvɛsənt, prolate 'prəʊleɪt, proliz 'prɔˈlɪz, pronlikely 'prəʊˈlɪkəlɪ, prostrate 'prəʊˈstræt, reflex 'rɪˈfleks, retail 'rɪˈteɪl, subject 'sæbdžikt.

III. Verbs: commune 'kəmˈjuːn, conjure (in the sense of to “do things as if by magic”) 'kændʒə, conquer 'konkər, construe 'kɒnstruː, differ 'dɪˈfər, dis count 'dɪˈskɑːnt, distance 'dɪˈstæns, offer 'ɔfə, perjure 'pəˈdʒəʊ, proffer 'prəˈfər, rescue 'rɛskjuː, suffer 'səˈfər, traverse 'trəˈvɛrs(ə).s.

(For cases in which the prefix has a distinct meaning of its own see § 613.)

582. Rule II. Most two-syllable words on the first stress 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, -es, -ey, -ice, -id, -idge, -i, -ile, -in, -ine, -ing, -ip, -ise, -ish, -ist, -it, -ite, -ix, -ie preceded by a consonant, -od, -ol, -on, -or, -our, -ous, -ow, -re preceded by a consonant, -ur, -ule, -ur, -ure, -y (including -ey, -ly, etc.), also words coming under rules XVI and XVII.

Examples: furnace 'fəːnls, ballad 'bæləd, luggage 'læɡdʒ, mountain 'mɑntən, metal 'mɛtəl, madam 'mædəm, organ 'ɔrɡən, substance 'səbˈtənt, errand 'ərənd, vacant 'vɛɪkənt, cellar 'sɛlər, mustard 'mʌstərd, rampart 'ræmpərt, ballast 'ˈbæləst, palate 'pɛlət (or 'pɛlət), wicked 'wɪkɪd, knowledge 'nəldʒ, college 'kɔlədʒ, tunnel 'tʌnəl, garden 'ɡɑːdn, silence 'sələns, talent 'tələnt, prosper 'prəʊsə, bonnet 'bɒnət, money 'mənɪ, practice 'præktɪs, stupid

1 Pronounced by some 'ɪnkəm; also 'ɪŋk-. 2 Less usually 'prəsses. 3 Less usually 'prəgres. 4 Less usually 'sæˈveɪ. 5 Or 'trəuns-. 6 Also pronounced 'kəˈmjuːn. 7 Conjure in the sense of to “charge solemly” is 'kɑndʒuə. 8 Pronounced by some 'kɑnstruː.

Jones, English Phonetics 8
The chief exceptions are (i) words coming under Rule XV, § 607; (ii) the following miscellaneous words: grime, gri'mels, domain do'meal or do'mehn, cadal ko'bel, canal ko'nel, Sedan si'den, Japan do'p'en, trepang tri'pen, divan di'ven, romance ro'meens or ro'meens, finance fi'neens or fal'neens¹, courant (name of a newspaper) ku'rent, Levant le'vant or li'vant, cigar si'gair, guitar gi'tar, bombard bom'bard, vacuate vo'keit, create kri'ait, sedate si'deit, ornate or'neit, serrate se'reit, July ju'ly, Brazil bri'zal or bri'zil, until an'til or an'til, chagrin (s. and v.) jae'grin or jo'gy, ferment (v.) fo'ment, ament (s. and v.) le'ment, torment (v.) to'ment, frequent (v.) fr'tkwen, fo'ment foun'ment, unless an'les or an'les, carees ko'res, possess po'zes, cadet ko'det, dut du'jet, quartet kwø'tet, quintet kwø'kwen, etc., piquet pi'khet, survey po'vel, police po'ilis or po'lis, caprice ko'pri's, machine ma'shin, saline (s. and adj.) sa'leen², sardine sa'da:nin³, marine ma'rin, divine (s. and adj. and v.) di'vein, equip l'kwip, chemistry ci'mi:j, chastise tsæ'taiz, police po'lait or po'lait, ignite ig'nait, unite ju'nait, baptize bæp'taiz, patrol (s. and v.) po'troul, Ceylon si'lon, capot ko'pot, gavot go'vot, shallot sho'lo, an'own o'mue, mogul mo'gul, brochure bro'fyr or bro'fyn, coiffure kwa'fyr or kwa'fyn, demure di'mju, manure me'nju, mature (adj. and v.) mo'tju, pelure po'ljue, secure (adj. and v.) si'kju.

Rule III. Three syllable words beginning with a monosyllabic prefix (§ 580, note), are generally stressed on the second syllable.

Examples: accomplish o'komplif, adjacent a'djeisnt, apparel o'paral, appendage o'pendidg, apprentice o'prentis, assemble o'sembl, consider kon'sid, diminish di'minin, disfigure dis'figar, dishearten dis'hærtun, disturbance dis'ta'bans, divergence dal'va dignous, enanour i'nämen, indignant i'dignant, internal in'forn, ingrinsic im'prizin, insipid in'sipid, precedence pri'si:das⁴, precentor pri'senor, prohibit pro'hibit or pro'hibit.

The chief exceptions are (i) words coming under rule V, § 588; (ii) the miscellaneous words: arrogance a'rogans, arrogant a'regnant, assonance a'sa:nans, assonant a'sa:ton, cogniscance ko'nisans, cognisant ko'nisont, combattant ko'mbatont, consonance ko'nsa:nans, consonant ko'nsa:nont, conversant ko'venont, covenant kai'vent, dissonance dis'a:nons, dissonant dis'a:ntant, disputant dis'putant, elegance e'ligans, elegant e'ligant, integral int'egral, interval int'eval, ignorance ignorauns, ignorant i'ignorant, miscreant mi'skri:nt, obstacle ob'sta:kl, occupant okju'pont, premature pre'mu tju, Protestant pr'o'tistant, recreant re'kri:ont, relevance relieions, relevant re'lievent, resonance re'zaonans or re'za:ns, resonant re'zaonant or re'zanzont, sufferance sa'fo:ans, supplicant sa'plikont, sustenance sa'stinsans, and the following words ending in -ence, -ent⁵: abstinence

¹ Some say fa'ineens.
² The adjective saline is also pronounced se'ilain.
³ Also pronounced 'su:di:n and 'su:di:n.
⁴ Pronounced by some presidins.
⁵ Complete lists of the words endings in -ence, -ent which are stressed according to the rule will be found in appendix B.
preceded by a consonant, the

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catedral ko'idi:dral, sepulchral se'palkral or si'p-., espousal is pauzl, carousel

9

1 'difrons is the more usual form.

2 'prefrau sis the more usual form.

3 'refraus is the more usual form.

4 'revraus is the more usual form.

5 'diftant 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 in'toa:nl, eks'toa:nl but they are more often pronounced with double stress ('in'toa:nl, 'eks'toa:nl) owing to the contrast (expressed or implied).
Chapter IX. Stress

588. Rule V. Three syllable words ending in -able, -acle, -ible, -icle, -ile, -ine, -ise, -ute, -uble, -ule, -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 'parəbl, obstacle 'obstəkl, possible 'pəsəbl or posəbl, article 'a:tɪkl, mercantile 'mə:kəntəl, projectile 'prə:dʒəktəl or 'prə:dʒəktəl, discipline 'dɪsəplən, columbine 'kələmbain, submarine 'səbəmrən:ə, exercise 'eksərəs, paradise 'pərədæləsl, appetite 'əpəˈtɪt, definite 'dɛfən(t, voluble 'vəljuəbl, ridiculous 'rɪˈdɪkʃəsl, persecute 'pərəˈsaɪkəlt, bicycle 'baɪsəlkl, proselyte 'prəˈsɛlət, attributable 'trəˈtribjuətl, contribute 'kənˈtribjuətl, distribute disˈtrɪbjuətl, parachute pəˈrəchut."

590. Rule VI. Words of three or more syllables ending in -gy, -gy, -my, -ny (excluding words of four or more syllables ending in -mony), -phy, -py, -try, -sy, -ty, and -ous are stressed on the last syllable but two.

Examples: aristocracy 'ærəstəkərəsi, lethargy 'leθərɡi, genealogy 'dʒiˈneələdʒi, astronomy 'æstrəməni, calumny 'kæləmnı, mahogany 'meɪˈhəgoʊni, atrophy 'ætrəfi, photography 'fəˈtəɡrəfi, philanthropy 'fɪlənθrəpi, occupy 'əˈkjʊpəl, geometry 'dʒiˈɒmətri, hypocrisy 'hɪˈpɒkrəsi or hiˈpəkrəsi, perpetuity poːˈpiːtju(:)lət, infamous 'ɪnˈfəməs, ridiculous 'rɪˈdɪkʃəsl, (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, occlusion 'əkluˈzəsi, competency 'kəmpəˈtænsi, confederacy kanˈfədərəsi, continency 'kəntənənsi, contumacy 'kəntəməsəsi, degeneracy diˈdʒenərəsi, delicacy 'dɛləkəsi, effeminacy iˈfɪmənəsi, efficacy 'ɛfɪkəsi, episcopacy iˈpləskəpoʊsi, excellency 'eksələnsi, exorbitancy iɡˈzoˌbətənsi, hesitancy ˈhɛzəntəsi, innovation ˈɪnənənsi, intimacy 'ɪntəmiəsi, intracacy ˈɪntrəkəsi, legitimacy liˈdʒɪtəməsi, magistracy 'mæɡəstrəsi, all words ending in -ancy (e.g. necromancy 'nekərəmənsi), obduracy 'əʊbdərəsi, obstinacy ˈəʊbstɪnəsi, occupancy 'əˈkjuːpənsi, pertinency ˈpərətɪnənsi, presidency 'prəˌzɪdənsi, turbulence ˈtəˌbjuːlənsi; metallurgy 'metələrədʒi, pedagogy ˈpədəˈɡəʊsl, amorphy ˈəməˈfəri, ignominy ˈɪɡnəməni, miscellany ˈmɪsələnəi,

1 Also pronounced ˈdʒələtiːn.
2 Also pronounced ˈɡlɪsərən.
3 Also pronounced ˈsjuːˈpəvaiəz.
4 The substantive is 'əˌtribjuətl.
5 Excluding -ious, see § 611.
6 Also pronounced pedagədʒi and -goudʒi.
592. Rule VII. Words of three or more syllables ending in -ate, -form, -fy, -ist, -ize (-ize), -ogue, -ude, are stressed on the last syllable but two

Examples: devastate, devastate, certificate (s.), sa'tifikt, certificate (v.), sa(t):-tifikt, uniform, ju:nifom, personify pə:sa:nifai, physiologist fizi'Olagist, monopolize, mo'npalaiz, catalogue katalo9, solicitude sa'lisitd.

593. The principal exceptions are: alternate (adj.), o:l'tanit, appellate o'pelit, apostate o'pastit, consummate (adj.) kan'samit, defalicate di'fa{lakt, incarnate in'karnat, intestate in'testit, peregrinate 'perigrinat, demonstrate ri'monstrat, sequestrate si'kwwestrat, polytheist pəliθi'est, imperialist im'pier'alist, materialist ma'tiaralist, rationalist ra'nalist, nationalist 'na:ftialist, naturalist 'na:ftialist, sensualist 'sensjalist, ritualist ritjalist, (non)conformist 'kon fun:rist, naturalize 'na:ftialfai, sensualize 'sensjalai or 'senfju, secularize 'sekju:raralz, characterize 'kærktaralz, allegorize 'aligai, anathematize 'a:nəθematəz, systematize 'sistemətəz.

594. Rule VIII. Words of four or more syllables ending in -ance, -ant, -ence, -ent (these terminations not being preceded by i, see § 611) are stressed on the last syllable but one when the termination is preceded by two other consecutive consonant letters, but on the last syllable but two in other cases.

Examples: extravagance iks'trayvλaiz, equidistant 'ikwi'distant, itinerant at'inerant, convalescence kon'vəlesns, circumference sa'kamforəns, correspondent koris'həndant, benevolent bi'nevələnt.

595. The chief exceptions are: (1) words coming under rule XVIII, e.g. incoherent 'inko'hiərant; (2) the following miscellaneous words: antecedent ænti'si:dənt or ænti'si:dənt, perseverance pə:si'verəns, interference in'təfərens, jurisprudence 'dʒuərispru:dəns, temperament 'tempeərəment.

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 in'θu:ziəzm, catholicism ka'θəlisizm, paroxysm pa'reksizm.

1 Also spelt with -isc.
2 The verb is 'okitə:nət.
3 The verb is 'konseμeit.
4 But demonstrate is 'demonstrat. The form 'remənstrat is occasionally heard.
5 Or 'kærktəraiz.
6 Excluding words formed from other words by means of the suffix -ment (e.g. accompanyment æ'kamponəment). For these see § 609.
7 Or iks'trayvλaiz.
8 Or it'inerant.
9 Also pronounced 'dguəris'pru:dəns.
10 Also pronounced in'θu:ziəzm.
597. The chief exceptions are: polytheism, isomorphism, animalism, parallelism, Americanism, Puritanism, patriotism.

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, abominable, amicable.

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: perceptible, responsible, amiable.

600. The exceptions are: (i) none, (ii) compatible, deducible, defensible, reducible.

601. Rule XII. Words of four or more syllables ending in -mony are stressed on the last syllable but three.

Examples: ceremony, promontory, derogatory.

(A list of the principal words which are stressed according to the rule is given in Appendix B.)

604. The principal exceptions are: alimentary, anniversary, capillary, capillary, elementary, exemplary, frivillarity, infirmity, parliamentary, supplementary, transitory, testant, adultery, artillery, buffonery, chicanery, delivery, discovery, directory, introductory, refectory, refractory, satisfactorily, supplementary, valedictory, depreciatory, directory, cancellatory, disciplinary, expiationary, obligatory, pacificatory.

1 Or 'paralizm.'
2 Also pronounced with -ibl.
3 Also pronounced sen'ti:uari.
4 Also pronounced i'frantari.
5 Also pronounced i:'1.
6 Also pronounced la'bora'tari 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 kan'sidardabl, measurable 'mesgarabl, attainable o'teinabl.

606. The chief exceptions are: admirable 'admardabl, applicable 'applikabl, despicable 'desplikabl, explicable 'eksplikabl, comparable 'komparabl, preferable 'preforabl, reputable 'rejutschabl, disputable 'disjutschabl, lamentable 'lamantabl, remediable r'mi:diabl, reparable 'reporaabl, refutable 'rejutschabl, revocable 'revakabl.

607. Rule XV. Most words ending in -ude, -ee, -eer, -ene, -ese, -esque, -ette, -ier (not including substantives formed from verbs in -y, e.g. copier 'kapie from copy), -oo, -oon, and two-syllable words ending in -ose, -ute are stressed on the last syllable.

Examples: cascad e'kas'kled, promenade pram'ni:d, lessee le'si; referee refo'ri; career ka'ria, supreme sju(si):pri:m, serene sa'rin:a, effervesce efe'ves, burlesque bo'lesk, gazette ga'zet, cashier (s.) ka'fle, cashier (v.) ka'fle, shampoo fam'pu, balloon ba'lon:n, jocose dzo'kous, acute o'kju:t.

608. The chief exceptions are: renegade 'reniqeid, marmalade 'mah-maleid, centigrade 'sentigread, retrograde retrogradre or 'retregread, comrade 'komrid, spondee'spondi; coffee kofi, apogee, 'apodgi; or 'apadgi; perigee 'pigadi, perigee 'pigadi, couchee ku'fel, tevee 'levi, trochee 'trouki; pedigree 'pedigri; committee ka'miti, omelette 'omlit, palette 'pelit, espalier is'paelja, brasier 'brei5a, collier 'kolja, courtier ka'tja, crosier 'krouja, frontier 'frantja, glacier 'gleija, glacier 'gleija, grasier 'grei5a, hosier 'houja, premier 'prenja, osier 'ouja, soldier 'souldja, rapier 'reipja, bireme 'bairi:m or 'baari:m, trireme 'trairi:m or 'trai5a:m, gangrene 'ganegra', purpose 'pa:pas, cashier 'kuku, hirsute 'has'jut, statute 'stai5ut, tribute 'tribju:t. The name Napier is sometimes pronounced na'pla and sometimes 'neipja; 'neipja 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 'krisendom, foreigner 'forina, manufacturer manju-'fektsfere, frequenter (from frequent (v.) fri 'kwent) fri 'kwent, shepherd 'jepadis, wonderful 'wandafl, brotherhood 'bradabud, yellowish 'jeloulf, remorseless ri-'ma:slis, extraordinarily 'eks'tra:durilli, necessarily 'nesirilli, gentlemanly 'dgent-manii, commandment ko'ma:ndmant, management 'manidgment, enfanchisement (from enfranchise in frent'faltz) in frentsizmant, ironmonger 'aenmannje, uppermost 'apamoust, comprehensiveness kompi'hensivnis, completeness kam pil'tuls, reasonableness 'riznahblnis, operator 'oporeelita, professorship pro 'foesifip, adventu-some ed'ventfosem, departure di'putje, afterwards 'a:ftawadz, sideways 'sald-

1 Also pronounced 'admirabl.
2 Also pronounced 'lamiutabl.
3 In the rare legal sense of a "person in charge of a lunatic" the pronunciation is kəmi'til.
4 Pronounced by some 'frantje.
5 Or 'apamoust.
The chief exceptions are: undertaker 'undateika, advertisement (from advertise 'advataiz) ed'vactisment, chastisement (from chastise tfaes tais) tfesstisment, aggrandisement (from aggrandize 'agrandaliz) a'grandizmant, executor (from execute 'eksikjut) ig'zekjuta, also legal terms in -or which are habitually contrasted with similar words in -ce, e. g. mortgagor ma:ga'dizando, (habitually contrasted with mortgagee ma:ga'dizi, § 607). Note also the forms idola'ter a'dolata, parishioner pa'riling.

611. Rule XVII. Words ending in -iac, -'lal, -ian, -iance, -iant, -ary, -ic, -ical, -ience, -ency, -ient, -ion, -ior, -ious, -ium, -ical, -ous, -ocal, -ual are stressed on the syllable immediately preceding the termination.

Examples: ammoniac o'nanikek, judicial dzu:disfl, memorial m'joril, librarian lai'brarion, mathematician ma:Olma'ti$fl, allegiance a'li:d$ons, luxurious l$g'jiuarian, subsidiary sab'sidjori, terrific ta'rifik, economic l'ko'namik, philosophical fila'soflik or fila'soflik, omniscience om'nisians, deficiency di'fljinsi, convenient kan'vigjant, centurion sen'tjviarion, contribution kontri'hi:juna, modification ma$ma'kejfn, oblivion a'blivian, inferior in'floria, behaviour bi'heiija, mysterious mis'tiaras, harmonium bu'mounjam, demoniacal di'namai'ak, courageous ko'reidg$es, equivocal i'kwivikl, habitual ba'bittjul.

612. The chief exceptions are: elegiac el'idi$tes, Arabic t'rabib, arithmetic (a.) o'rithmatik, Catholic ke'thaliak or ka:thaliak, (arch)bishopric (u:tf)-'bijoprik, heretic heretik, politick polattik or politik, rhetoric retorik, spiritual spiritujul.

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 own, 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-

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1 Generally pronounced by foreigners with stress on the third syllable.
2 Note however affiance a'falions, alliance a'latons, appliance a'pliains, compliance kam'pliains, defiance di'faians, reliance ri'laions, compliant kam'pliaint, deficient di'faiant, reliant ri'laient.
3 The adjective is seriO'metik.
4 But heretical, political, rhetorical are stressed according to the rule (hi'retiikl, po'litikl, ri'torikl).
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-.

Examples: antclimax 'sentl'klaimæks, archbishop 'a:ʧbifəp, disloyal 'dis'lələlə, disconnect 'diskə nekt, discontented 'diskəntəndid, disembark 'disim- ələk, ex-president 'eks prəzidənt, half-finished 'hau'finəft, joint-tenant 'dʒɔt-təntənt, inexperienced 'inkəspələnt, insincere 'insənsərəl, insufficient 'insə fəntəl, illegal 'ɪləjələ, imperceptible 'ɪm'pəsəptəblə, irreligious 'ɪrlə'lidʒəs, intermingle 'ɪntə'miŋglə, misprint 'mis prənt, misrepresentation 'misrəprəzən'tenələlə, non-payment 'nɔn pəlmənt, outgeneral 'aut'dʒənərəl, overestimate (v.) 'əʊvə'restəmit, over- rife 'əʊvə raiəp, prepaid 'prl'pəid, rearrange 'rə'rəndʒə, semi-dean 'sə'hədi:n, ultra-fashionable 'ʌltə'fəʃə'nəblələ, unfruitful 'ən'fru'təflələ, unknown 'ən'nəumlə, unpack 'ənpək, unobjectionable 'ənə'bʒəkʃənəblələ, underestimate (v.) 'ən'də'restəməlt, under-secretary 'ən'də'sekrətri, vice-chancellor 'vəs'tʃænəl.

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 dis'kærədʒ (courage not being used as a verb), in- ordinate i'nədənət, (the adjective ordinate being rare), unwieldy un'wi:lədə, undoubted an'dəˈtədəd (doubted not being used as an attributive adjective), undertake 'ən'dətəkənt (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 anə'kəuntəbələlə while unaccountable is usually ənə'kəuntəbəl; so also invariably is regularly pronounced in'veərəbələlə, though the adjective invariable may be pronounced in'veərəblə or in'veəriəblə.

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 im'pəsəbl (or im'pəsəbl), unusual un'juərəblələ, unfortunate un'fa'ʃənət.

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 (im'pə'səptəblə or im'pə'səptəbl, i'siŋjuələtəti, əʊvə'restəmit), even when not under the influence of rhythm (§ 624); others would say im'pə'səptəbl (or

1 The prefixes here referred to may be conventionally termed the "separable" prefixes.
2 Or 'dis' lələlə.
3 Or -tibl.
4 Compare recover ("get back") ri'kəvə with recover ("cover again", said of umbrellas, etc.) ri'kəvə. In reproduction the re- is not felt as separable, and the normal pronunciation is accordingly ri: pro'dakʃən.
Further exceptions are archbishopric *aː*ʃˈbɪʃəprik, archdeaconry *aːʃˈdɪːkənri, archdeaconstship* *aːʃˈdɪːkəʃip, halfpenny* *hɛlpəni* or *ˈhelpi*, *nonentity* *nəˈnɛntiti*. Archangel is usually *ɑːkˈeɪndʒl* but may be pronounced *ɑːkˈeɪndʒl*.

The following miscellaneous words are commonly pronounced with double stress (which may be modified by rhythm, see § 624): *amen* *ˈɑːmən* or *ˈeɪmən*, *backbite* *ˈbækˌbait*, *darelay* *ˈdeɪˌseɪl, hulə* *ˈhələ*, *inborn* *ˈɪnˈbɔːn, inbred* *ˈɪnˌbɹɛd, inlaid* *ˈɪnˌleɪd, innate* *ˈɪnət, conversely* *ˈkɑːnˌvəˈsli, postdate* *ˈpɒstˈdeɪt, and the numerals thirteen* *ˈθɜːtən* *ˈfɔːˌtɪn*, *fourteen* *ˈfɔːˌtiːn*, *fifteen* *ˈfɪfˈtiːn*, *sixteen* *ˈsɪksˌtiːn*, *seventeen* *ˈsɛvəntiːn*, *eighteen* *ˈeɪtˈtiːn*, *nineteen* *ˈnɪntiːn*.

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* *ˈkæntən* or *ˈkæntɔn, consuls* *ˈkɑːnˌsəlz* or *ˈkənˌsəlz* or *ˈkənˌsəlz* (also *ˈkənsəlz*), *indiarubber* *ˈɪndʒəˈræbə or ˈɪndʒəˌræbə, princess* *ˈprɪnˈsɛs or ˈprɪnˈsɛs*, *sardine* *ˈsɜːrˈdɪn* or *ˈsɜːdˈɪn, trombone* *ˈtrɒmˈbɔːn* or *ˈtrɒmˈboun*. *Banjo* is usually *ˈbændʒəʊ* but many say *ˈbændʒəʊ* or *ˈbændʒəʊ*. Instances of the effect of rhythm on these words are given in § 625.

A number of proper names are similarly treated, e.g. *Bantu* *ˈbæntuː or ˈbæntuː, Bengal* *ˈbɛŋˈɡəl or ˈbɛŋˈɡəl* (or *ˈbɛnˈɡəl, benˈɡəl*l), *Berlin* *ˈbɛrlən or ˈbɛrlən, Bexhill* *ˈbɛksˈhɪl or ˈbɛksˈhɪl, Blackheath* *ˈblækˈhɪθ or ˈblækˈhɪθ, Canton* (in China) *ˈkæntən or ˈkæntɔn*, *Carlisle*, *Carlyle* *ˈkɑːləl or ˈkələl, Cheapside* *ˈtʃɪpˌseɪd or ˈtʃɪpˌseɪd, Cornhill* *ˈkɔːnˌhɪl or ˈkɑːnˌhɪl, Panama* *ˈpənəmə, or ˈpənəˈmaː, Dundee* *ˈdʌndiː or ˈdʌndiː, Pekin* *ˈpəkən or ˈpiːˈkɪn, Penrith* *ˈpɛnɹɪθ or ˈpɛnɹiθ, Piccadilly* *ˈpɪkədəli or ˈpɪkədəli, Scafell* *ˈskəlf or ˈskəlf, Spithead* *ˈspɪtˌhed or ˈspɪtˌhed, Stonehenge* *ˈstʊnˌhɛnʤ or ˈstɒnˌhɛnʤ, Torquay* *ˈtɔːˌki or ˈtɔːˌki*, *Vauxhall* *ˈvɔksˌhɔːl or ˈvɔksˌhɔːl, Whitehall* *ˈwɛltˌhɔːl or ˈwɔltˌhɔːl, and many names ending in *ˈnes*, e.g. *Skegness* *ˈskɛɡnəs or ˈskeɡnəs*, *Shoeburyness* *ˈʃuːbərɪnəs or ˈʃuːbərɪnəs*, also disyllabic adjectives ending in -ese formed from proper names, e.g. *Chinese* *ˈtsəˌniːz or ˈtsəˌniːz, Maltese*

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1 For miscellaneous compound words with double stress see § 644.
2 This word is regularly pronounced *ˈɑːˈmən in church; in other circumstances both forms are heard, *ˈɑːˈmən being the more usual. Amen Corner is however *ˈeɪmənˈkɑːn.*
3 Also *bækˈbait* or *ˈbækˌbait.*
4 The plural *princesses* is regularly *ˈprɪnˈsɛz.*
5 But *Canton* in Wales is *ˈkæntən.*
6 *Carlisle* is locally *ˈkɑːləl.*
7 Locally *ˈpɛnɹiθ.* The surname *Penrith* is regularly *ˈpɛnɹiθ.*
8 But *Newquay* is *ˈnjuːˈkæ.*
Woed-Strkss (Influence of Rhythm)

623. The names *Amsterdam* and *Constantinople* are usually pronounced with double stress, thus: *'æmstə'dæm*, *'kɒnstənti'noupl.* (*Rotterdam* *'rətədæm* 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 (*ˈfɔːtɪ:'ʃɪlɪŋz*) and in *just fourteen* it is stressed on the second syllable only (*dʒʌstfɔː:'tiːn*). Compare similarly *inlaid wood* *ˈɪnlɛidwʊd* with *all inlaid ə:'lɪn'leɪd, an unknown land ən'ɒnnoun'lænd* with quite unknown *ˈkwɔɪtən'noun.*

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* ˈprɪnsəsvɪkˈtɑːriə with *a royal princess* əˈrɔɪəlprɪnˈses,

*an indiarubber ball* ənˈɪndʒərəˈbɔːl with *made of indiarubber* ˈmɛldəvɪndʒəˈrɑːbə,

*Piccadilly Circus* ˈpɪkədɪliˈsɛks with close to *Piccadilly‘klɒnstəpɪkəˈdɪli,*

*Vauxhall Bridge* ˈvɑːkʃəlˈbrɪdʒ with near *Vauxhall ˈvɒxəlˈbrɪdʒ,*

*Dundee marmalade* ˈdʌndiˌmɑːˈmeɪld with going to *Dundee ˈdʌndiˌmeɪld*.

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 *ˈkɒnstitʃuːnˈhɪl* (not *ˈkɒnstitʃuːnˈhel*) and *kelinˈpɛpə.* In *Salvation Army* the stress *ˈsælˈveɪʃəmɪ* seems quite as usual as *sælˈveɪʃəmɪ.* Similarly many would say *ənˈɑːtɪfiʃəlˈlɛɡwɪdʒ, əˈdɪpləmætɪkˈmɪʃn,* rather than *ənˈɑːtɪfiʃəlˈlɛɡwɪdʒ, ədɪpləˌmætɪkˈmɪʃn* (an artificial language, a diplomatic mission). Those who pronounce *finance* as *fəɪnəns* will often speak of a *fəɪnənsˌˈsæbkwəmɪti* (finance subcommittee).

1 Also pronounced *ˈmɔːlˈtiːz,* *mɔːlˈtiːz.*
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 ōfanda’mentl, ōdistri’bju:fn, ris’punsə’bili, ōdis’p iarans) would often be pronounced ’fanda’mentl, ’distri’bju:fn, ris’punsə’bili, ’dis’p iarans 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 ’an’les instead of the normal ōn’les or an’les); spectator is occasionally pronounced ’spek’t eita (instead of the normal spek’t eita). 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’t eifn, ’kæriktə’ristik, ’kærikə’tjuə are quite as common as the single-stressed forms reprizent eifn, 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 ’pe’pendikju’læriti, ’kæriktərəl’zeifn.

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:və:s. When commission is contrasted with omission, it is commonly pronounced ’kə’miʃn or ’kə’miʃn. So also with ascending and descending, offensive and defensive, which are frequently ’əsendiŋən’di:’sendiŋ, ’əfensivən’di:’fensiv1 (instead of ə’sendiŋəndi’sendiŋ, ə’fensivəndi’fensiv2). 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 ə’sendiŋəndi’sendiŋ, ə’fensivən’di:’fensiv.
2 Or o’fensiv-. 
SPECIAL DIFFICULTIES OF FOREIGNERS

632. Most foreigners have a tendency to stress the last syllable of words ending in -ite, -ude, -ise, -ize contrary to the rules in §§ 588, 592. They also generally stress the last syllable of reconcile, which should be 'rekênzail'. Examples for practice: prosecute 'prosikju:t', substitute 'sabstitju:t', gratitude 'grætitju:d', multitude 'multitju:d', criticize 'kritiçaiz', exercise 'eksosaiz', recognize 'rekognail'. Foreigners are particularly apt to stress the syllables -ju:t, -ju:d, -aiz, in the in-filled forms such as prosecuted 'prosikju:tid', criticizes 'kritiçaiziz'.

633. The French are apt to stress the final syllable wrongly in many other words. Examples for practice: language 'läggwidg', paper 'peipa', collar 'kâla', distance 'distans', circumstance 'sê:kàmstans', universe 'jû:nivès', ridicule 'riediktju:l', goodness 'gûdnîs', vexation 'vek'selfu', disgraceful 'dis'greisful.

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 conson-ants, 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 'ri'mâkêbl', sufficient 'so'fjut', tremendous 'tri'mêndes', reluctance 'rì:laktôns', successful 'sê:k'sesful', and to stress the first syllable in such words as absolutely 'absëlu:tîl', execute 'eksikju:t', excellent 'eksôlont.

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 'æpîtri:, bookbinding 'bükbiándig, bystander 'bái-stànda', Buckinghamshire 'bâkígamfia', daybreak 'deibrek', dining-room 'dailigrum', fireplace 'fai'plelis', flowerpot 'flauapot', footpassenger 'futpèsindzê', flute-player 'flûtpleis', grasshopper 'gru:shöp', hairbrush 'hëbraf', housekeeper 'hanskipa', jellyfish 'gélfif', kettle-holder 'ketboulda', key-hole 'ki:houl, 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'neva), -self (e.g. himself 'him'self, themselves 'êm'selvz), and the words hereafter 'hê'ru:fta, thereafter 'dë'ru:fte, throughout 'ôra ut, wherein 'hwea'rin, already 'ôl'redi, look-out 'luk'aut, uphold 'ap'hould, shortcomings 'ô:t'kâmîgs.

3 Or 'bâkígamfà.
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 *blæksmið*, bluebottle *blu:blottle*, Newcastle *nju:kə:sl*, greenhouse *ɡrɪn'hæus*, kingfisher *kiŋˈfɪʃə*. (Exceptions are: greatcoat *gretˈkɒut*, greengage *ɡriŋˈgɛdz*.)

(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* *bəθdei* (a special day), *cart-horse* *kɑ:rθɔ:s* (a particular kind of horse), *darning-needle* *dɑ:nɪŋ-nʌl*, *dinner-table* *ˈdɪnətɛɪbl* (a particular kind of table), *gas-engine* *ˌɡæzəndʒɪn* (a particular kind of engine), *cattle-show* *ˈkætlʃəʊn*, *sheepdog* *ˈʃiːpdɒg*. 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* *ˈflʊtpleɪə* (where *flute* is naturally felt to be contrasted with other musical instruments).

Double stress is used in compound adjectives of which the first element is an adjective. Examples: *redhot* *ˈredhoʊt*, *good-looking* *ˈɡudˈlʊkiŋ*, *old-fashioned* *ˈɔuldˈfeɪnd*, *bad-tempered* *ˈbædˈtempəd*, *absent-minded* *ˈæbsəntˈmeɪndid*, *first-class* *ˈfɜːrstklɑːs*, *second-hand* *ˈsecəndhænd*, *dead-beat* *ˈdedˈbi:t*. Note also *home-made* *ˈhɑmˈmeid*, *pig-headed* *ˈpɪɡˈhɛdid*, *well-bred* *ˈwelˈbred*.

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* *ˈəʊvlʃeɪpt*, *yellowish-looking* *ˈjelənɪʃˈluːkiŋ* (which are practically equivalent to "oval", "yellowish").

When the second element of a compound is felt to be of special importance double-stress is used. Thus *gas-stove* is normally *ˈɡæsˈstʌv*, 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* *ˈɡæsəndʒɪn* 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...
engines worked by other means.) Further examples are: *rice-pudding* ("pudding" being generally contrasted with "meat", etc.), *churchyard* (the "yard" being implicitly contrasted with the church itself, compare *graveyard* in which there is no such contrast), *eye-witness* ("witness" being contrasted with persons who had only heard of the occurrence, etc.), *bow-window*.

Armchair "a:m'tsəʊ 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* 'mɪd'sʌmə, *midwinter* 'mɪd'wɪntə. 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 (§ 644), and this pronunciation has become attached to them in all cases. Compare *mid-winter* 'mɪd'wɪntə, 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* 'daʊn'hɪl, *uphill* 'ʌp'hɪl, *downstairs* 'daʊn'streɪs, *upstairs* 'ʌp'streɪs; hereby 'hɪə'-bæi, herein 'hɪə-rɪn, hereinafter 'hɪərɪ'nəːftə, heretofore 'hɪətə'fɔː, hereupon 'hɪərə pɒn, thereabouts 'ðɛərə bɑnts, thereby 'ðə bæi, therein 'ðɛə rɪn, thereupon 'ðɛərə pɒn, whereupon 'hwɛərə pɒn; henceforth 'hens'fɔːθ, henceforward 'hens'-fɔːd, henceforward 'ðɛns'-fɔːd, elsewhere 'els'hweə; inside 'ɪn'sæd, outside 'aut'sæd, outsider 'aut'sændə, alongside 'əʊɡ'sæd, seaside 'siː'sæd; indoors 'ɪn'dəʊz, outdoors 'aut'dəʊz; upturn 'ʌp'tərn; meantime 'mɪːn'teɪn, meanwhile 'mɪːn'hweɪl; passer-by 'pɑːsə bæl, 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:

- a red-hot poker 'ə'redhot'poukə
- second-hand books 'sekəndhænd'buks
- inside out 'ɪnsaid'ant
- the upstairs rooms əɪ'apstɛəz ˈrʌmz
- greengage jam 'ɡriːneidʒ'dʒæm
- a light great-coat ə'leɪtɡreɪt kɔut.

1. Note, however, *hereafter* 'hɪə'rəːftə, *thereafter* 'ðɛə'rəːftə.
2. Note, however, *thereabouts* 'hɪərəbɑnts, *whereabouts* 'hwɛərəbɑnts. Wherein is always 'hwɛərərɪn.
3. Also 'mɪːn'hweɪl.
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 weis’pɛipəbɔːskɪt. Otherwise three-word compounds take single stress on the first element. Examples: teapothandle *tiːpəθændl, lodginghousekeeper *lɒdʒɪŋhɔːskɪpə, soda-waterbottle *souðəwɔːtɔbɔtl, watercressbed *wɔːtəkresbed.*

DIFFICULTIES OF FOREIGNERS

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: ['aːm'tʃə, 'plæm'pudɪŋ] (Germans generally say *'aːm'tʃə, 'plæmpudɪŋ*), while the correct intonations of dinner-table, lightning-conductor, pronounced with a falling intonation, may be represented thus: ['dɪnə'teɪbl, 'laɪtnɪŋkəndəktsə] (French people generally say *'dɪnə'teɪbl, 'laɪtnɪŋkəndəktsə*).

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 verbs, 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: *də'relatɪv'stresəvðə ’wɔːdzənə’ɡruːp di’pɛndənðə’relatɪvɪm’pəːtəns.* Similarly *What do you think of the weather?* is stressed *’hɔːtɪdʒuː’θɪŋkəvðə’wɛðə;* the numeral 125 is pronounced *ə’hændrədn’twəntɪ’fæɪv.*

1 Note that *have* when used as a principal verb is normally stressed and has its strong form *hɛv.*

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: dʒəˈnæz dʒəstˈboʊtˈtuː lə dʒˈbrɔn̩dɑːgz.

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 ˈvəriɪm pəntnt, a useful book əˈjuːsflˈbʌk, the first prize dəˈfoʊstˈpraɪz, roast beef ˈrʌʊstˈbɪli, a deck chair əˈdekˈfɛə, the boy's book dəˈboɪzˈbʌk, Wednesday evening ˈwednzdiˈvɛnɪŋ, George's dog ˈdʒɔːdʒizˈdɑɡ, North Western ˈnɔːθ-
westən, the castle wall dəˈkaːslˈwɔːl, an orphan boy ənˈɔrθənˈboi, all right əˈlɛrət, so far so good ˈsoʊˈfuːˈsoʊɡud, it was too much itˈwɔzˈtuːˈmɪtʃ, Buckingham Palace ˈbækɪnɡm̩ ˈpælɪs, Hyde Park ˈhʌɪd-
pərk, York Road ˈjɔːkˈrɔʊd, Chancery Lane ˈtʃænˈsɜriˈleɪn, Gloucester Terrace ˈɡluːstəˈtɛrəs. Many foreigners, especially Germans, are apt to omit the stress on the second word in most cases of this kind (e.g. to say ˈrʌʊstbɪli, əˈlɛrət). (They also often use an incorrect intonation, see § 746.) Wherever, 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 ˈwɔztuˈmatʃ).

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: heˈgot up and went away hiˈɡɔt əpənˌwɛntəˈwei, put down that parcel! ˈput-
ˈdɑʊnəd ˈpəsl, take it off! ˈteɪkitəˈf. Phrases like get ready, make haste which are equivalent to single verbs are treated in like manner (ˈgetˈrɛdi, ˈmeɪkˈhеist).

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* əˈmɔstəmˈpərɪnt ənˈɪŋ 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* ˈmiːtwɪd, *enter into* (an agreement) ˈentərɪntu.
you that book is ai'nevəgelvju:ðætbuk\(^1\); 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: ai'nevəgelvju:ðætbuk (stress on I and no stress on never), ai'nevəgelvju:ðætbuk (stress on you and no stress on gave or on that), ai'nevəgelvju:ðætbuk (stress on that and no stress on book). In I don't object, if I is stressed, don't is unstressed, thus 'aidountəðːiːk. In that is your look out 'ðæts'ja:lu:kəut look out is not stressed. in order to give greater force to your.

655. In the expression to make sure tæneik'ju: the make is usually not stressed, in order to give greater force to sure; similarly in he gave a final touch... hi'gelvəfainl'tatf... 

656. In some people think so 'sampl:pl'ðipksou there is an implied contrast with "other people", therefore people loses its stress.\(^2\) So also in the latter case dæ'leaðəkəis there is a contrast (expressed or implied) with "the former case", and case loses its stress; similarly in in that case in'dætkəls, where there is a contrast (expressed or implied) with some other case. The absence of stress on rate in the expression at any rate o'tenirelt 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 haumeni'taimzavju:'bi:nəžə?'ðriːtaimz (no stress on the second times), those who have read about everything are commonly supposed to understand everything 'doʊzuhoəredəbət'evriəŋəkə'mənumələspouədənəstændevrimə'nɪŋ (no stress on the second everything), we think of that as a child thinks wi:'ðipkəv'dætəzə'tʃaIdəŋks (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 ø'kju:tæŋgl (without stress on ængl) even when no contrast with "obtuse" is intended; similarly with railway journey 'reilweidxəni, pleasure trip 'plegətrɪp. These cases are sometimes difficult to distinguish from the cases mentioned in § 661.

659. 2nd exceptional case. The double stress in groups of words sometimes 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 dæəwəsəm'bukson-ðə'teiləl. Some denoting one of a class is pronounced sam but has no stress, e.g. we must try and get hold of some teacher wi:mas 'trəlæŋget'həuldeɪvssam ɪ:tʃə. (Some teachers would, however, be səmətʃəfəz, or, if contrasted with "other teachers", səmti:tʃəz.)
(ep. § 624). The following are examples of variations in stress due to this cause: hot roast beef 'hotroust'bi:f (ep. 'roust'bi:f), John went away 'dgonwente'wei (ep. he went away normally pronounced hi:-'wenta'wei), a very good thing o'verigud'ti:gi (cp. o'gud'ti:gi), a good little boy o'qulith'bal, we cannot get out wi:'ka:ntget'ant (ep. get out 'get'ant, he put on his hat hi:'putoniz'hæt (ep. hi:'putit'on), go and get ready 'gouæget'redi (cp. get ready at once! 'get'rediat'-'wans), we did not see anything at all wi:'didnts:eniθiθo:tæ:l (no stress on si:) (ep. we did not see the exhibition wi:'didnt'si:dieksi'bifn), the disaster claimed many victims ðodi'za:stakleimd'meni'viktimz (no stress on kleimd), London and North Western 'lanδænum:noθ'westen (no stress on na:θ), there was nothing going on ðæweæ-'næθinouig'ou'n (no stress on gouig), no one went near it 'nowωanwente-'nɛri:τ (no stress on went), it seems so funny it'si:mzsou'fæni (no stress on sou).

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 'hot'roust'bi:f, 'lanδænum:noθ'westen. 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 'do:heændl, gooseberry bush 'guzbribus', camping ground 'kæmpinggrund, tennis ball 'tenis:bol, golf club 'gæfklab (also 'gæfklab), cricket bat 'krikit-bæt, diamond merchant 'da:emænum:tʃɔnt (even when no contrast between dealers in diamonds and dealers in other goods is intended), violin string vaio'linstrɪŋ, the Law Courts 'dɔləkɔrəts. (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 'guzbrita:t ("tart" being instinctively contrasted with "pie", "pudding", etc.). Saucepan lid would usually be 'sæ:spən'lid, no doubt owing to an implied contrast between the lid and the saucepan itself (cp. 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? hazi:gaunt'taundɪsməni:gi, how do you do, Mr. Smith? hauðju'du:nístɔ:smiθ, "Yes", he said 'jeshi:si:d, where the phrases this morning. Mr. Smith, he said, are of a parenthetical nature.

1 In rapid conversation often wi:'ka:ntget'ant.
2 In rapid conversation often 'gouæget'redi.
3 In rapid conversation often 'lanδænum:noθ'westen.
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 mɔ:nin̈, 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 mistesmiiθ, hi:sed are pronounced with low pitch. Thus:

'haizi: qaunθo:taunθis'mɔ:nin̈.

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 ɔ:treinwẽz'leit (compare the train arrived late ɔ:treinraird'leit, in which the verb is stressed), you are never ready ju:newe'redi, what is the time? ʰwɔtșđe'taim. (But it is stressed finally in I don't know where it is ai'doun'tnou'hweari'tiz, here we are ʰiaw'i:, the chances are... ɔ:ʃunθi:za: ..., the fact is ɔ:ʃekt'iz, the reason being... ɔ:ri:znθi:iiy ...)  

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:'u:skθawθe'taimwoz.

667. 6th exceptional case. The word street in names of streets is never stressed, e.g. Oxford Street oksfodstrit, Downing Street dainiysstrit (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 ʃe:sediz'fa:θa (where father may be stressed, but said should not be), after a storm comes a calm ʰu:fræ'stæ:mkamzθo:kam (no stress on kamz).

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 'hwenni:'kamz allintrə'dju:simtu:ju, as I was saying... 'azaiwɔz'seiiŋ ..., nor do I 'na:dətal.1 If the order of the clauses in the first example were reversed, the hwenn would not be stressed, because the whole sentence would be pronounced in one breath-group, and the hwenn 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 no:'jet).
unstressed syllables. Thus and at the same time... may be pronounced *ændədə*seim*ˈtɑːm*... or *ændədə*seim*ˈtɑːm*... Even in but it is of the greatest importance it would be more usual not to stress the but, pronouncing *hətɪtsərə*greit*ɪstɪmˈpərətus*. Foreigners are recommended to use the weak forms and and but in all such cases.

671. Monosyllabic prepositions and the disyllabic prepositions into *ˈɪntu* or *ˈɪntə*¹ and upon *əˈpən* or *əˈpən* 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 *ˈɑːnɪzˈweɪ* hi:*ˈhædnədˈventʃə*.

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 *ˈaːftə*, between *bɪˈtwiːn*, during *ˈdʒuəriŋ*, besides *hɪˈsædz*, along *ˈæləŋ*, concerning *kɑːnˈsərniŋ*, 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? *ˈhwaʊtəju(ː)ˈlʊktə,tɛ,t ʰəəərə* who are you talking to? *ˈhuəju(ː)ˈtəˌkiŋtə*, what is all that fuss about? *ˈhwətsəˈlʊdəˌfəsəˌbaʊnt, ʰəəərə* we asked where they came from *ˈwəˌskθəwəˈdəiˌkəɪmfrəm, ʰəəərə* put your things on *ˈpʊtʃəˌθɪŋzən*, 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 required²; e.g. it is very good for you *ɪtsˈveriˈɡudfoːju* (less usually *ɪtsˈveri*ˈɡudfoːju*), what shall we do with it? *ˈhwətsflwɪ(ː)ˈduːˌwiːdɪt*, look at them *ˈlʊkətədəm* (less usually *ˈlʊkətədəm*). 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 (*ˈɡudfoːju*, 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 hills were not large, but there were a great many of them *dəˈbɪlzwaˈnetˌloːdəˌbɪdəzəˌgreitˈməntəˈvɨdəm*.

677. Auxiliary verbs are normally not stressed.

¹ *ˈɪntu* is used before vowels and finally, *ˈɪntə* before consonants.
² Note that in expressions of this kind the theoretically correct *whom* *hərn* 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'kæn̂bidan, it has been done it'hæzbi(ː)ndan¹; I may have said so ai'meiv'sedsou. 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:'kam.

(ii) When immediately followed by not pronounced nt, e.g. I should not have thought so ai'itudntəv'θə:tsou, we have not been able to wi:hÆvntbi(ː)n'eibltu.²

(iii) When introducing a question, e.g. Have you seen them? 'hævju:sk:nəm, 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? hwot'u:ju(ː)nduŋp, what is to be done? hwot'iztəbl'ndan, how did they manage it? hau'diðdəi'mənidgit³ (but in however did they manage it? hau'ɛvədiðdəi'mənidgit 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-hav, yes, he does 'jesbi:dəz.

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? 'hwotajəgouŋtə'du:. (It would also be possible to stress going.)

680. The pronoun one in a good one ə'gudwən, everyone'əvriwən, 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 'douzələp, matters in I will explain matters 'ailikspa:linmætə, affair in that is my affair dets'maiəfte.

681. The pronoun each in the expression each other i:tf'ədə is not stressed.

682. The adverb on in the expression and so on ən'souən is not stressed. The adverb again in back again 'bækəgeiun (or -ən) 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-thwenu:woz'gən..., then you dont believe it? ənju:dounəntə'livit. The adverbs now and then are, however, normally stressed, e.g. how

¹ Under ordinary circumstances these sentences would be pronounced itkæn̂bi'dan, itazbi(ː)n'ndan or itstəbi(ː)n'dan.
² These expressions might also be pronounced aifəd'nuətəv'θə:tsou, wi:ri'nətəbl(ː)n'eibltu.
³ Under ordinary circumstances these sentences would be pronounced 'hwotəunj(ː)nduŋp, 'hwotstəbl'ndan, 'hau'diðdəi'mənidgit.
are you now? *hauaju:*'nau? The expression *now then* is pronounced *nauden* 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 souhii:wentint eðo-ga:dn*. The adverb *so* in *do so 'du:son*, *think so 'θi:kson*, 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.
136

Chapter XXI. Intonation

\[ \text{when it falls we have a falling intonation; when it remains on one note for an appreciable time, we have level intonation. Level intonation is comparatively rare in ordinary speaking, but is not uncommon in reciting pieces of a serious character. It may often be noticed, for instance, in the speech of good actors reciting Shakespeare.} \]

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 \( F^{\text{'}} \) 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 \( G \).

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

\[ \text{The author has, however, frequently heard } F \text{ and even } E \text{ from ladies whose voices did not sound abnormally low. With ladies whose voices sound distinctly lower than the average, notes as low as } D \text{ and } C \text{ may often be recognized, incredible as it may seem. Speaking generally, however, notes cannot be clearly recognized below } G \text{ the voice then degenerating into a kind of growl without recognizable pitch.} \]
intonation. 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 $E\text{^7}$, 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:

<table>
<thead>
<tr>
<th>High Pitch</th>
<th>Low Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>h. p.</td>
<td>l. p.</td>
</tr>
<tr>
<td>jes</td>
<td>jes</td>
</tr>
<tr>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

(high pitch, low pitch, meaning "That is so.")

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?")

h. p.        l. p.
jes          jes
yes          yes

(meaning "yes, I understand that; please continue.")

h. p.        l. p.
jes          jes
yes          yes

(meaning "Is it really so?")

h. p.        l. p.
jes          jes
yes          yes

(meaning "That may be so.")

h. p.        l. p.
jes          jes
yes          yes

(What are you doing?)

(Expressing greater curiosity.)

1 It is to be understood of course that in the musical notation the notes merely show the salient points of the true intonation.
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:

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>wiːˈdɪd/hwətəjuiˈdʌɪŋ.</td>
<td></td>
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</table>
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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ˈhwətəjuiˈdʌɪŋ.</td>
<td></td>
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</table>
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(Expressing still greater curiosity.)

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>wiːˈdɪd/hwətəjuiˈdʌɪŋ.</td>
<td></td>
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</tbody>
</table>
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(Expressing anger.)

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ˈhwətəjuiˈdʌɪŋ.</td>
<td></td>
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</table>
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(You being in contrast with someone else.)

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ˈhwətəjuiˈdʌɪŋ.</td>
<td></td>
</tr>
</tbody>
</table>
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(The same, but with greater curiosity.)

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
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</thead>
<tbody>
<tr>
<td>gwəˈməːnɨŋ.</td>
<td></td>
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</table>
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(Good morning!)

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
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<tbody>
<tr>
<td>gwəˈməːnɨŋ.</td>
<td></td>
</tr>
</tbody>
</table>
```

(On separate meeting.)

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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gwəˈməːnɨŋ.</td>
<td></td>
</tr>
</tbody>
</table>
```

(Good morning!)

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).
Intonation

*h.p.*

\begin{align*}
\text{\textquoteleft\textquoteleft we\textquoteright\textquoteright did what we were told.} \\
\text{\textquoteleft\textquoteleft w-i\textquoteright\textquoteright did what we were told.}
\end{align*}

("We" in contrast with someone else.)

*h.p.*

\begin{align*}
\text{\textquoteleft\textquoteleft it\textquoteright\textquoteright was quite impossible.} \\
\text{\textquoteleft\textquoteleft it\textquoteright\textquoteright was\textquoteleft\textquoteleft kwaitim\textquoteright\textquoteright pos\textquoteright\textquoteright bl.}
\end{align*}

700. 1\textsuperscript{st} exceptional case. When statements are equivalent to questions they often take a rising intonation at the end.

Examples:

\begin{align*}
\text{\textquoteleft\textquoteleft aiz\textquoteright\textquoteright pouz\textquoteright\textquoteright ja\textquoteright\textquoteright f\textquoteright\textquoteright amilie\textquoteright\textquoteright ro\textquoteright\textquoteright l\textquoteright\textquoteright wel.} \\
\text{\textquoteleft\textquoteleft aiz\textquoteright\textquoteright pouz\textquoteright\textquoteright ja\textquoteright\textquoteright f\textquoteright\textquoteright amilie\textquoteright\textquoteright ro\textquoteright\textquoteright l\textquoteright\textquoteright wel.}
\end{align*}

\text{(\textquoteright\textquoteright Are all your family well?)}

\begin{align*}
\text{\textquoteleft\textquoteleft ju\textquoteright\textquoteright ekamig.} \\
\text{\textquoteleft\textquoteleft ju\textquoteright\textquoteright ekamig.}
\end{align*}

("you" emphasized)

\begin{align*}
\text{\textquoteleft\textquoteleft aibegj\textquoteright\textquoteright jo\textquoteright\textquoteright pa\textquoteright\textquoteright dn.} \\
\text{\textquoteleft\textquoteleft aibegj\textquoteright\textquoteright jo\textquoteright\textquoteright pa\textquoteright\textquoteright dn.}
\end{align*}

\text{\textquoteleft\textquoteleft What did you say?\textquoteright\textquoteright For a different intonation of the same phrase see \S\ 702.)}
701. 2\textsuperscript{nd} 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:

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{ai'\textbf{\textit{thi}k}'\textbf{\textit{ks}}\textbf{\textit{ou}}}</td>
<td>\textit{ai'\textbf{\textit{thi}k}'\textbf{\textit{ks}}\textbf{\textit{ou}}}.</td>
</tr>
<tr>
<td>\textit{I think so.}</td>
<td>\textit{I think so.}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{ju:d'\textbf{\textit{b}e}\textbf{\textit{t}}\textbf{\textit{e}}}</td>
<td>\textit{ju:d'\textbf{\textit{b}e}\textbf{\textit{t}}\textbf{\textit{e}}}.</td>
</tr>
<tr>
<td>\textit{You had better.}</td>
<td>\textit{You had better.}</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
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<tbody>
<tr>
<td>\textit{ai'h\textbf{\textit{ou}p}'\textbf{\textit{d}e}'\textbf{\textit{i}b}'\textbf{\textit{t}}\textbf{\textit{u}}}</td>
<td>\textit{ai'h\textbf{\textit{ou}p}'\textbf{\textit{d}e}'\textbf{\textit{i}b}'\textbf{\textit{t}}\textbf{\textit{u}}}.</td>
</tr>
<tr>
<td>\textit{I hope they will be able to.}</td>
<td>\textit{I hope they will be able to.}</td>
</tr>
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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
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<tbody>
<tr>
<td>\textit{ai'h\textbf{\textit{ou}p}'\textbf{\textit{d}e}'\textbf{\textit{i}b}'\textbf{\textit{t}}\textbf{\textit{u}}}</td>
<td>\textit{ai'h\textbf{\textit{ou}p}'\textbf{\textit{d}e}'\textbf{\textit{i}b}'\textbf{\textit{t}}\textbf{\textit{u}}}.</td>
</tr>
<tr>
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<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
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<tbody>
<tr>
<td>\textit{ai'\textbf{\textit{k}sp}'\textbf{\textit{e}kt}'\textbf{\textit{d}e}'\textbf{\textit{o}k}'\textbf{\textit{am}i}'}</td>
<td>\textit{ai'\textbf{\textit{k}sp}'\textbf{\textit{e}kt}'\textbf{\textit{d}e}'\textbf{\textit{o}k}'\textbf{\textit{am}i}'}</td>
</tr>
<tr>
<td>\textit{I expect they are coming.}</td>
<td>\textit{I expect they are coming.}</td>
</tr>
</tbody>
</table>

702. 3\textsuperscript{rd} exceptional case. Statements expressing regret generally have a rising intonation at the end.
Examples:

h. p.  

1. p.  

\[ \text{wi:wo'sou'sari'nottabi'eiblte'kam.} \]

\[ \text{wi:wo'sou'sari'nottabi'eiblte'kam.} \]

We were so sorry not to be able to come.

\[ \text{ai'begjo:'pa:dn.} \]

\[ \text{ai'begjo:'pa:dn.} \]

I beg your pardon.

h. p.  

1. p.  

\[ \text{aim'o:flisori.} \]

\[ \text{aim'o:flisori.} \]

I am awfully sorry.

208. 4\textsuperscript{th} 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.  

1. p.  

\[ \text{ju('dounts:i:mta'kxorabaut'ðæðiinz.} \]

\[ \text{ju('dounts:i:mta'kxorabaut'ðæðiinz.} \]

You don't seem to care about other things.

h. p.  

1. p.  

\[ \text{ju'sedsou 'noual'didnt.} \]

\[ \text{ju'sedsou 'noual'didnt.} \]

You said so. No, I didn't.

1 Note the difference between this intonation and the intonation of the same words with a different meaning given in § 700.

\[ \text{“Other things” contrasted with something previously mentioned.} \]
Chapter XXI. Intonation

4. Compare:

h. p.  

l. p.  

<table>
<thead>
<tr>
<th>ju: sed sou 'jesat'did.</th>
<th>(Assent.)</th>
</tr>
</thead>
</table>

ju: sed sou 'jesat'did.
You said so. Yes, I did.

h. p.  

l. p.  

<table>
<thead>
<tr>
<th>'didju:'seisou 'nonai'didnt.</th>
<th>(Simple question and answer.)</th>
</tr>
</thead>
</table>

'didju:'seisou 'nonai'didnt.
Did you say so? No, I didn't.

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.  

<table>
<thead>
<tr>
<th>'daet'dazt'metæ.</th>
<th>(&quot;That&quot; emphasized.)</th>
</tr>
</thead>
</table>

'daet'dazt'metæ.
That does not matter.

h. p.  

l. p.  

<table>
<thead>
<tr>
<th>'aididnt'æskjutu.</th>
<th>(&quot;I&quot; emphasized.)</th>
</tr>
</thead>
</table>

'aididnt'æskjutu.
I did not ask you to.

h. p.  

l. p.  

<table>
<thead>
<tr>
<th>aï'didn'æ:sk'j:tu:.</th>
<th>(&quot;You&quot; emphasized.)</th>
</tr>
</thead>
</table>

aï'didn'æ:sk'j:tu:.
I did not ask you to.
Compare:

\[ \text{h. p.} \]
\[ \text{l. p.} \]
\[ \text{it'daznt'mæto.} \]
\[ \text{it'daznt'mæto.} \]
\[ \text{It does not matter.} \]

(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.)

\[ \text{h. p.} \]
\[ \text{l. p.} \]
\[ \text{ai'didnt'u:skjutu.} \]
\[ \text{ai'didnt'u:skjutu.} \]
\[ \text{I did not ask you to.} \]

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:

\[ \text{h. p.} \]
\[ \text{l. p.} \]
\[ \text{it'teiksəbaunt'lu:auəz'dʒenrəli.} \]
\[ \text{it'teiksəbaunt'lu:auəz'dʒenrəli.} \]
\[ \text{It takes about two hours generally.} \]

\[ \text{h. p.} \]
\[ \text{l. p.} \]
\[ \text{ail'lukfəwanifju'laik.} \]
\[ \text{ail'lukfəwanifju'laik.} \]
\[ \text{I will look for one if you like.} \]

(If the reservations “generally”, “if you like” had not been added, falling intonations would have been used.)

706. 2nd Rule. Imperative sentences generally take a falling intonation at the end.
Examples:

h. p. | l. p.  
--- | ---  
'kam'ən. | 'kam'ən.  
'kam'ə-n. | 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:hwətai'telju. | 'du:hwətai'telju.  
'du:hwətai'telju. | Do what I tell you!  
(Pronounced very impatiently.)

h. p. | l. p.  
--- | ---  
'kamən'dainwidəs. | 'kamən'dainwidəs.  
'kamən'dainwidəs. | 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'ən. | 'kam'ən.  
'kam'ən. | Come on!  
(Spoken to a person.)

h. p. | l. p.  
--- | ---  
'du:kam'ən. | 'du:kam'ən.  
'du:kam'ən. | Do come on!
Give my kind regards to your brother. Please do not trouble.

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:

Do not take any notice of them.

Compare:

Dot not take any notice of them.

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:

Shall we get some apples?
Chapter XXI. Intonation

H. P.

L. P.

Have you been to the exhibition?

H. P.

L. P.

Have you ever been there?

H. P.

L. P.

That is the direction, isn't it?

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.

Didn't I see you at the station the other day?
711. 1\textsuperscript{st} 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. \quad l. p. \quad 'hævju'bi:nədəiksi'bi:n. \quad (implying "You had not been when I saw you last").

\textit{Have you been to the exhibition?}

\begin{itemize}
  \item \textit{h. p.} \quad \textit{l. p.} \quad 'sælwi'getsəm'æplz. \quad \texttt{[S]} \quad \texttt{[S]}
  \item \textit{h. p.} \quad \textit{l. p.} \quad 'sælwi'getsəm'æplz. \quad \texttt{[S]} \quad \texttt{[S]}
  \item \textit{h. p.} \quad \textit{l. p.} \quad 'sælwi'getsəm'æplz. \quad \texttt{[S]} \quad \texttt{[S]}
\end{itemize}

\textit{Shall we get some apples?}

712. 2\textsuperscript{nd} exceptional case. When such a question expresses an invitation it often takes a falling intonation at the end.

Examples:

h. p. \quad l. p. \quad 'wilju'kəməndainwid̂es. \quad (A rising intonation would also be possible here.)

\textit{Will you come and dine with us?}

\begin{itemize}
  \item \textit{h. p.} \quad \textit{l. p.} \quad 'dætsədəi'rekfn'iznutit. \quad \texttt{[S]} \quad \texttt{[S]}
  \item \textit{h. p.} \quad \textit{l. p.} \quad 'dætsədəi'rekfn'iznutit. \quad \texttt{[S]} \quad \texttt{[S]}
\end{itemize}

\textit{That is the direction, isn't it?}

\textit{(Where "isn't it" is an invitation to assent, and does not express a desire for information on the speaker's part.)}
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'golntabi'faintadei.  ________________________________  (= The statement "I wonder whether it will be fine to-day")

Is it going to be fine to-day?

h. p.  ________________________________  l. p.  ________________________________

"diddeiseisou.  ________________________________  (="I don't believe they did say so.")

Did they say so?

Compare:

h. p.  ________________________________  l. p.  ________________________________

"izit'golntabi'faintadei.  ________________________________  (="Do you think it will be fine to-day?")

Is it going to be fine to-day?

h. p.  ________________________________  l. p.  ________________________________

"diddei'seisou.  ________________________________  (="Do you know whether they said so?")

Did they say so?

714. 4th rule. Direct questions not capable of being answered by "yes" or "no" generally have a falling intonation at the end.
Examples:

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
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<tbody>
<tr>
<td>'haudju'menidzit.</td>
<td>'haudju'menidzit.</td>
</tr>
<tr>
<td>How do you manage it?</td>
<td>How do you manage it?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>'haudju'menidzitōn.</td>
<td>'haudju'menidzitōn.</td>
</tr>
<tr>
<td>How do you manage it then?</td>
<td>How do you manage it then?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>'haudju'menidzitōn.</td>
<td>'haudju'menidzitōn.</td>
</tr>
<tr>
<td>How do you manage it then?</td>
<td>How do you manage it then?</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>h. p.</th>
<th>l. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>'hau'meni.</td>
<td>'hau'meni.</td>
</tr>
</tbody>
</table>

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).
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.  

\( \text{haumeni.} \)

\( \text{haumenididjusei.} \)

\( \text{How many?} \)

\( \text{How many did you say?} \)

717. \( v^\text{th} \) Rule. Interjections and exclamatory phrases take the intonation of the complete sentences to which they are equivalent.

Examples:

h. p.  

l. p.  

\( \text{gud.} \)

\( \text{gud.} \)

\( (= \text{"I am glad of it"} \) \)

\( (= \text{"Do you consider that good?"} \) \)
What an extraordinary thing!

How high it looks!

Really!

Well?

As if we should!

Good morning!
Chapter XXI. Intonation

152

152. Chapter XXI. Intonation

Intonation (On separating) (implying non-finality, or some such continuation as "I shall hope to see you again soon.")

Good morning!

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:

But in acknowledging an unexpected favour a falling intonation seems more usual, thus:

719. Thank you with rising intonation is often reduced to ykju or kju thus:

(Thank you with a falling intonation is not generally reduced in this way.)
720. Note that *all right* generally takes a rising intonation, thus:

\[ \text{h. p.} \quad \text{'a'l'rait.} \]
\[ \text{l. p.} \quad \text{'a'l'rait.} \]

The use of a falling intonation would have the effect of a threat.

721. **vi**th 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:

1. p.  
   \[ \text{welju:si:itwɔzɔn'diswei.} \]
   \[ \text{'welju:si:itwɔzɔn'diswei.} \]
   ("You see" having low level intonation.)

   Well, you see, it was in this way.

1. p.  
   \[ \text{gud'ɔ:nimistɔbraun.} \]
   \[ \text{gud'ɔ:nimistɔbraun.} \]
   ("Mr. Brown" having low level intonation.)

   Good morning, Mr. Brown.

1. p.  
   \[ \text{gud'baioʊl'tfɛp.} \]
   \[ \text{gud'baioʊl'tfɛp.} \]
   (Same intonation as "good-bye").

   Good-bye, old chap.¹

¹ A familiar expression often used by men when taking leave of an intimate friend.
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.  

"I think" having low level intonation.

It was the second, I think.

723. If it were desired to emphasize the words home and succeeds in the above examples, the intonation would be as follows:
INTONATION

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. viii\textsuperscript{th} 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:

- **Example 1:**
  - ifitseki'sidz - ai$'l$'meike'fot$n.
  - If it succeeds I shall make a fortune.

- **Example 2:**
  - ifitseki'sidz - ai$'l$'meike'fot$n.
  - If it succeeds I shall make a fortune.

725. ix\textsuperscript{th} rule. *When a dependent clause (other than a clause pressing a reservation, § 726) follows the principal clause it generally ids with the intonation which the principal clause would have had standing by itself.*
Examples:

\[ \text{h. p.} \quad \text{l. p.} \]

\( \text{ju}(:) \text{mast'weit'hii'ili'il}' \text{'kamz.} \)

\( \text{Ju}(:) \text{mast'weit'hii'ili'il}' \text{'kamz.} \)

You must wait here till he comes.

\( \text{h. p.} \quad \text{l. p.} \)

\( \text{wi'keim'hounbikozitwaz'reiniy.} \)

\( \text{wi'keim'hounbikozitwaz'reiniy.} \)

We came home, because it was raining.

\( \text{h. p.} \quad \text{l. p.} \)

\( \text{hi' spendziz'mani'oz'ifis'woramiljo'ne.} \)

\( \text{Hi' spendziz'mani'oz'ifis'woramiljo'ne.} \)

He spends his money as if he were a millionaire.

\( \text{h. p.} \quad \text{l. p.} \)

\( \text{ai'eskimwati'otetabantit.} \)

\( \text{Ai'eskimwati'otetabantit.} \)

I asked him what he thought about it.

\( \text{h. p.} \quad \text{l. p.} \)

\( \text{'didju(,:skimwati'otetabantit.} \)

\( \text{'Didju(,:skimwati'otetabantit.} \)

Did you ask him what he thought about it?
Do you like this book which I bought the other day?

How do you like this book which I bought the other day?

We shall see you before you go.

Further examples are the following:

We will start immediately, if you are ready.

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. 

\[\text{θεωρπλίζαν'θεοζαν'πλαμζ.}\]

(A rising intonation on “plums” would imply that there were also other kinds of fruit.)

There were apples and pears and plums.


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 \[\text{\textbullet}{\text{\textbullet}}\] 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. 

\[\text{ιτίζντ'βαε'd.}\]

(implies “but at the same time it is not very good”.)

It isn't bad.

h. p. 

l. p. 

\[\text{wi'kαντ'δυττα'dει.}\]

(implies though we might perhaps be able to to-morrow.)

We can't do it to-day.
h. p. | l. p.  
---|---
````
'ńatšwotì:sed. 
````
That is what he said.

(implying “though I don’t know whether that is what he meant”)

h. p. | l. p.  
---|---
````
ai’wilifai’käñ. 
````
I will if I can.

(implying “but I doubt whether I shall be able to”)

h. p. | l. p.  
---|---
````
it’wazn’t’auñez. 
````
It wasn’t ours.

(implying “but at the same time it isn’t quite right”)

729. When a single syllable receiving a compound rising intonation ends with n, 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 kän.

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.
782. 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 \( \hat{\jmath} \)). 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.

783. 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.

784. Examples of a compound rising intonation spread over two syllables are:

\[
\begin{align*}
\text{l. p.} & \quad \text{aim'\( \hat{\jmath}\):flis\( \hat{\jmath}\):ori.} \\
\text{I am awfully sorry.}
\end{align*}
\]

\[
\begin{align*}
\text{l. p.} & \quad \text{ni'nju:i:kept'ho:siz.} \\
\text{I knew he kept horses.}
\end{align*}
\]

785. An example of a compound rising intonation spread over three syllables is

\[
\begin{align*}
\text{l. p.} & \quad \text{its'd\( \hat{\jmath}\):ast'pos\( \hat{\jmath}\):bl.} \\
\text{It is just possible.}
\end{align*}
\]
786. An example of a compound rising intonation spread over a large number of syllables is

h. p. \[\text{intonation curve}\]

l. p. \[\text{intonation curve}\] (‘that’ in contrast with something else)

It isn't that I wanted to see you about.

787. The compound rising intonation usually occurs finally; but it may occasionally be heard in other positions. An example is the word we in \textit{WE did what we were told} (‘we’ in contrast with someone else) § 699, example 2.

788. \textit{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 \textit{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 \\textit{oun, tel, mæn, kan} are therefore pronounced on a descending sequence of notes, thus:

h. p. \[\text{intonation curve}\]

l. p. \[\text{intonation curve}\]

740. Several examples of this principle may be observed in the passage from “Dodo” transcribed with intonation curves in the author’s \textit{Pronunciation of English}, e. g. p. 87, 1\textsuperscript{st} line of text, \textit{a’fril’vais’ko:ld-doundoufræmdə’drægrum}, p. 87, bottom line, ‘tu:’tepíd’pouft’eqz, p. 90, line 2, \textit{æ’brændiə’souðændə’grild’houn}, p. 90, line 5, \textit{æ’lauddit’a:mind’vais}, p. 93, line 1, \textit{itmeiks’ælə’dfıuıstəməı’wæk\textsuperscript{1}}, p. 95, line 3, \textit{æ’dıəliti’sæ’visinizðə’hauz}, p. 96, line 4. \textit{ændwi:lvænðə-sæ’visæ’tə’kwæt’pust}.

\textsuperscript{1} In the first edition of the \textit{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 0:1.
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. l. p. where an intonation of the type h. p. 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

\[\text{\textipa{absolutely.}}\]

but French people generally pronounce it more like

h. p. | l. p. | "ap\textipa{solytli.}"
\[\text{\textipa{ap\textipa{solytli.}}}

744. Single stressed compounds (§§ 637, 648) afford a good example of the same point. Example:
French people often employ one of the following incorrect intonations:

Correct pronunciation.

Type of incorrect intonation commonly heard from French people.

745. Further examples illustrating the same principle are:

I think so.

What are you looking at?

I have never been there.
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 [\(\text{h.p.} \quad \searrow\text{l.p.}\)], they are apt to use one of the type [\(\text{h.p.} \quad \swarrow\text{l.p.}\)].

Examples:

<table>
<thead>
<tr>
<th>Correct pronunciation</th>
<th>Type of incorrect intonation commonly heard from French people</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>h.p.</strong></td>
<td><strong>l.p.</strong></td>
</tr>
<tr>
<td>'dountju’əɪŋksəu.'</td>
<td>'dountju’əɪŋksəu.'</td>
</tr>
<tr>
<td>(Dont you think so?)</td>
<td>(Dont you think so?)</td>
</tr>
<tr>
<td><strong>h.p.</strong></td>
<td><strong>l.p.</strong></td>
</tr>
<tr>
<td>‘ʃælwə'gwaʊnd'luːkətɪt.'</td>
<td>‘ʃælwə'gwaʊnd'luːkətɪt.'</td>
</tr>
<tr>
<td>(Shall we go and look at it?)</td>
<td>(Shall we go and look at it?)</td>
</tr>
<tr>
<td><strong>h.p.</strong></td>
<td><strong>l.p.</strong></td>
</tr>
<tr>
<td>‘wan’moʊmənt.’</td>
<td>‘wan’moʊmənt.’</td>
</tr>
<tr>
<td>(One moment.)</td>
<td>(One moment.)</td>
</tr>
</tbody>
</table>

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.

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 [\(\text{l.p.} \quad \swarrow\text{l.p.}\)] where they should use an intonation of the type [\(\text{l.p.} \quad \swarrow\text{l.p.}\)] and to use an in
Intonation 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.

\[ \text{Correct pronunciation.} \]
\[ \text{h.p.} \]
\[ \text{l.p.} \]
\[ \text{wia'going'si:rit'smond'pak.} \]
\[ \text{We are going to see Richmond Park.} \]

Incorrect intonation commonly heard from Germans.

\[ \text{Incorrect intonation commonly heard from Germans.} \]
\[ \text{h.p.} \]
\[ \text{l.p.} \]
\[ \text{wia'going'si:rit'smond'palk.} \]

Example of the second case:
Correct pronunciation.

\[ \text{Correct pronunciation.} \]
\[ \text{h.p.} \]
\[ \text{l.p.} \]
\[ \text{faelwi'gouta'rit'smond'palk.} \]
\[ \text{Shall we go to Richmond Park?} \]

Incorrect intonation commonly heard from Germans.

\[ \text{Incorrect intonation commonly heard from Germans.} \]
\[ \text{h.p.} \]
\[ \text{l.p.} \]
\[ \text{faelwi'gouta'rit'smond'palk.} \]
\[ \text{Shall we go to Richmond Park?} \]
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): 

\[ \text{ondda} \text{saidgai} ' \text{texte} ' \text{haidte'sei kept'ta}\text{aim}\text{endo'stei} ' \text{g} \text{an}, \text{the mistakes being} \\
\text{h. p.} \begin{align*}
\text{\text{'s}\text{aidtmeidz}\text{e}.} \\
\end{align*} \\
\text{l. p.} \\
\begin{align*}
\text{\text{'s}\text{aidtmeidz}\text{e}.} \\
\end{align*}

\begin{align*}
\text{instead of} \\
\text{\text{'s}\text{aidtmeidz}\text{e}.} \\
\end{align*}

\begin{align*}
\text{Sergeant major.} \\
\text{h. p.} \begin{align*}
\text{\text{'beta'taim.} \\
\end{align*} \\
\text{l. p.} \\
\begin{align*}
\text{\text{'beta'taim.} \\
\end{align*}

\begin{align*}
\text{instead of} \\
\text{\text{'beta'taim.} \\
\end{align*}

\begin{align*}
\text{Better time.} \\
\text{h. p.} \begin{align*}
\text{\text{'stei} ' \text{n}\text{'g} \text{an.} \\
\end{align*} \\
\text{l. p.} \\
\begin{align*}
\text{\text{'stei} ' \text{n}\text{'g} \text{an.} \\
\end{align*}

\begin{align*}
\text{instead of} \\
\text{\text{'stei} ' \text{n}\text{'g} \text{an.} \\
\end{align*}

\begin{align*}
\text{Station gun.} \\
\text{h. p.} \begin{align*}
\text{\text{'i} ' \text{wz}\text{e} \text{bautd}\text{}'i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*} \\
\text{l. p.} \\
\begin{align*}
\text{\text{'i} ' \text{wz}\text{e} \text{bautd}\text{}'i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*}

\begin{align*}
\text{h. p.} \begin{align*}
\text{\text{'i} ' \text{wz}\text{e} \text{bautd}\text{}'i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*} \\
\text{l. p.} \\
\begin{align*}
\text{\text{'i} ' \text{wz}\text{e} \text{bautd}\text{}'i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*}

750. Most Germans also have great difficulty in pronouncing syllables on a high level tone, as is necessary in such cases as the syllables on, tel, män, 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:

\begin{align*}
\text{h. p.} \begin{align*}
\text{\text{'i} ' \text{wz}\text{e} \text{bautd}\text{'}i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*} \\
\text{l. p.} \\
\begin{align*}
\text{\text{'i} ' \text{wz}\text{e} \text{bautd}\text{'}i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*}

\begin{align*}
\text{hi} ' \text{wz}\text{e} \text{bautd}\text{'}i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\text{hi} ' \text{wz}\text{e} \text{bautd}\text{'}i} ' \text{ounliin'} \text{telid}\text{gend}\text{m}\text{enin} ' \text{de'kantri.} \\
\end{align*}
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 where a tone of the type should be employed. Examples:

Correct pronunciation.

h. p. __________ l. p. __________

Swedes often use a tone of the type where a should be employed. Examples:

Where are you going to?

h. p. __________ l. p. __________

I am going to London.

752. 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

METHODS OF RECORDING INTONATION

753. There are various methods of recording intonation.

753. 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', to which readers are referred for further information.

755. Certain small inaccuracies are unavoidable with this method, 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 tambour¹ (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 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-
bour of 1.5 cm. diameter with very thin perished rubber membrane. 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 recording 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 sound 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).  

*768. 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.

*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 pho, pʰa (slightly aspirated p), pa (unnaspirated p), ʙu (with unvoiced b) and bʉ (with fully voiced b). 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 ʙu 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 sounded¹); 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, ù, pronounced without any trace of nasalization regularly show fairly clear vibrations in a nose-tracing made with a 1 5 very thin perished rubber tambour; on the other hand the opener vowels such as ë, æ, 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 prɛpʂ.
Fig. 117. Mouth-tracings of phaː, phaː, paː, haː, haː. (Slightly less than original size.)
Fig. 119. Mouth and Larynx tracings of bed-time, egg-cup. ($\frac{3}{4}$ original size.)

Fig. 120. Mouth and Larynx tracings of fife-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 fete-day, boot-jack, football, the so-called voiced consonant is generally completely devocalized or very nearly 's' (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 kymographically. Fig. 122 is a mouth-tracing of the word play 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 shows simultaneous mouth and larynx tracings of play 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).
records of affricates

Kymographic tracings will throw a certain amount of light on the controversy as to whether the English tj, dj are double sounds or single ones (see §§ 205–207). Fig. 124 shows mouth tracings of the words eitf (name of the letter H), eights eits, eighth eitθ and eitz (the usual English mispronunciation of French être). Fig. 125 shows mouth-tracings of the syllables do:, dzo:, dzα:, dja: (with fricative r), drα: (with rolled r). Fig. 126 shows mouth-tracings of the words tight, tait, church tʃeːtʃ, tʃeːtʃe, tʃeːtʃi, traitress ˈtreɪtɪs. 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 tj and dj 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
§ 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.
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).
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).
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 \( N = n \left( \frac{3}{2} \right)^p \) or \( p = \log \frac{N}{n} \), where \( p \) is the number of semitones 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.
The 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 2.7 units. The average duration of each vibration in the group is therefore one quarter of this, viz. 0.0675 sec. Therefore at that rate of vibration 1 sec would contain 0.0675 or 148 vibrations. This corresponds to a note between D and D flat 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 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-
Chapter XXII. The Kymograph

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.

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<tbody>
<tr>
<td>Duration of each group of 4 vibrations (measured in hundredths of a second)</td>
<td>2.7</td>
<td>2.7</td>
<td>3</td>
<td>2.7</td>
<td>2.2</td>
<td>2.3</td>
<td>2.2</td>
<td>2.3</td>
<td>2.6</td>
<td>2.7</td>
<td>2.75</td>
<td>3.05</td>
<td>3.15</td>
<td></td>
</tr>
<tr>
<td>Average duration of vibration in each group (in seconds)</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
</tr>
<tr>
<td>Average pitch of each group (in vibrations per second)</td>
<td>145</td>
<td>148</td>
<td>183</td>
<td>148</td>
<td>182</td>
<td>182</td>
<td>182</td>
<td>174</td>
<td>154</td>
<td>148</td>
<td>147</td>
<td>131</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Approximate average pitch of each group (in musical notes on bass clef)</td>
<td>between D and D#</td>
<td>between C# and F</td>
<td>just above F</td>
<td>between D and D#</td>
<td>between C and C#</td>
<td>just above B</td>
<td>between D and D#</td>
<td>between C and C#</td>
<td>just above B</td>
<td>between D and D#</td>
<td>between C and C#</td>
<td>just above B</td>
<td>between D and D#</td>
<td>between C and C#</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference no. of group</th>
<th>27 &amp; 28</th>
<th>29 &amp; 30</th>
<th>31 &amp; 32</th>
<th>33 &amp; 34</th>
<th>35 &amp; 36</th>
<th>37 &amp; 38</th>
<th>39 &amp; 40</th>
<th>41 &amp; 42</th>
<th>43 &amp; 44</th>
<th>45 &amp; 46</th>
<th>47 &amp; 48</th>
<th>49 &amp; 50</th>
<th>51 &amp; 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of each group of 4 vibrations (measured in hundredths of a second)</td>
<td>3.2</td>
<td>3.25</td>
<td>3.3</td>
<td>3.4</td>
<td>3.35</td>
<td>3.3</td>
<td>3</td>
<td>2.8</td>
<td>2.7</td>
<td>2.5</td>
<td>2.45</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Average duration of vibration in each group (in seconds)</td>
<td>0.006</td>
<td>0.0092</td>
<td>0.0092</td>
<td>0.0095</td>
<td>0.0087</td>
<td>0.0085</td>
<td>0.0075</td>
<td>0.007</td>
<td>0.0075</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
<td>0.0085</td>
</tr>
<tr>
<td>Average pitch of each group (in vibrations per second)</td>
<td>125</td>
<td>123</td>
<td>121</td>
<td>118</td>
<td>119</td>
<td>121</td>
<td>133</td>
<td>143</td>
<td>148</td>
<td>160</td>
<td>163</td>
<td>167</td>
<td>167</td>
</tr>
<tr>
<td>Approximate average pitch of each group (in musical notes on bass clef)</td>
<td>between B and C</td>
<td>just above B</td>
<td>between A# and B</td>
<td>just below B</td>
<td>between D and D#</td>
<td>just below C#</td>
<td>just below D</td>
<td>between E and E</td>
<td>just below F</td>
<td>just below E</td>
<td>just below F</td>
<td>just below B</td>
<td>between D and D#</td>
</tr>
</tbody>
</table>
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:, a:, u:, œ, differ from the English I, A, X, & in quantity ("under similar circumstances", § 534) as well as in quality,

2. The rule that the English ç and ò both have lower tongue-position than what may be termed the "cardinal" (continental) a,

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" I is only used finally and before consonants,

8. The rule that voiced liquid consonants and semivowels are partially devoiced 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, ï, ñ, œ, for the "short" i, a, u, œ (those who object to diacritical marks might use i, u, for i, u, and use ñ for the "long" a:, leaving œ for the "short" sound),

2. Having new signs, such as o and ñ, for the sounds æ and ñ.

3. Using e, or possibly ë or ð, instead of e (the use of ë would involve using æ in the diphthong æ œ),

4. Using o, or some new sign such as ò, for o,

5. Using i for unstressed short i,

6. If desired, to indicate the diphthongic pronunciation of i: and u:, using ï, ï ñ, or i, i ñ,

7. Using I finally and before consonants, and I elsewhere,

8. Marking partial devoicing 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):

- account 'kaunt
- address 'dres
- adept 'dept (also 'ædept)
- advance ad'vans
- advice ad'veis
- affair 'fə in
- affray 'fray
- affright 'frait
- affront 'frant
- alloy 'loi
- ally 'elai (also 'eelai)
- amendments 'mendz
- applause a'ploiz
- arrest 'rest
- ascent o'sent or o'sent
- assent o'sent or o'sent
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz
- assign a'sain
- assize a'mendz

In the legal sense of a "second lease" the word is pronounced 'ri:li:s or sometimes 'rli:li:s.
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 ab’härans
adherence ad’härans or æ’d’härans
adherence ad’härans or æ’d’härans
coherence kon’härans
compliance kam’plesans
concurrency kon’kærans
condolence kon’donans
consistency kon’sistas
contingence kon’tindgans
dependence di’pendans
diversity dai’vö:dans
effulgence e’falgdans
emergence i’mo:dans
existence i’g zistas
imprudence im’pru:dans
indulgence in’dal’gans
occurrence o’kærans (or o’k-)
precedence pri’sidans
recurrence ri’kambans
recurrence ri’kærans
refulgence ri’faldgans
resplendence ris’plendans
resubordion re’sö:dans
existence re’sö:dans
transcendence tran’sen-dans or tran:\n
abolent in’kambønt
indecent in’d’sent (also 'in’d-
indulgent in’dalgønt
infrequent in’fr:kønt
inherent in’hærant
insistent in’sistant
insolent lu’salvant (also ‘lu s-
object a’pounant
precedent (adj.) pri’si-
dant (also president)
recumbent ri’kambønt
refulgent ri’faldgønt
repellent ri’pelønt
resolvent ri’zalvant
resplendent ris’plendønt
respondent ris’pondønt
restringent ris’tindgønt
transcendent tran’sen-
doant or tran: ttranslucent tran’z’lø:nt
or tran:\transparency tran’s’pe-
rent or tran:\unfrequent in’fr:kønt.

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 ‘legsø, decency ‘di’sans) and words formed from these by addition of the prefix in-

(b) aristocracy æris’takrøsi
ascendancy æ’sendøans or æ’s-
astringency æ’s’tindgønt
autocracy æ’takrøsi
compliance kam’plesans
conservancy kan’so:vansi
consistency kon’sistas
conspiracy kon’pirøs
delinquency di’linkwansi
democracy di’møkøs
dependency di’pendøns
despondency dis’pondøns
emergency i’mo:dans
expectancy iks’pøktans
lietentancy left’ømønsi
malignancy ma’lignansi
supremacy su’premsøsi
theocracy thøkrøsi
transparency tran’s’pe-
røsi or tran:\

(c) all words ending in -ficiency (e.g. sufficiency sø’fìfønsi).
4. List of the principal words of four or more syllables ending in -ary, which are stressed on the last syllable but three according to rule ($§$ 603):

(a) words ending in -ary:

actuary *aktjuәri
adversary *әdvensәri
antiquary *әntikәri
arbitrary *әbәrәri
aviary *әlvәri or *әlvәri
cassowary *kәsәwәri or *kәsәw-
commentary *komәntәri
constabulary *kәns'tәb-jәliәri

culinary *kju:linәri
customary *kәstәmәri
dignitary *dәginәtiәri
eleemosynary eiliː'әzioni-
emissary *әmiәri
epistolary ʾiːp′iʃtәliәri or ʾe-
estuary ʾәstjuәri

extraordinary ikst′әrәdi-
әri or -dәri
February ʾfәbrәri
fragmentary ʾfraŋmәn-
tәri
hereditary hi′әreditәri
honorary ʾәnәri
imaginary ʾi:\әdәginәri
itinerary ʾiːt′iәriәri or ʾi-
January ʾdәznjuәri
literary ʾliәtәri
luminary ʾәlniәri
military ʾmәsәri
momentary ʾmәnәntәri
necessary ʾnesiәri
numerary ʾnju:әәri or ʾn-
ordinary ʾә:dәri or -dәri
planetary ʾplәniәtiәri
preliminary pri′liәniәri
proprietary pri′pәtәri
pulmonary ʾpәlәmәri
residuary ri′zәdjuәri
salutary ʾәәljuәri
sanguinary ʾsәgәwiәri
secretary ʾsәktәri
sedentary ʾәdәntәri
seminary ʾәniәri
solitary ʾәәliәri
statuary ʾstәtjuәri
supernumerary Emit′nju:
nju:әәri
temporary ʾtәmәnәri
tributary ʾәb′juәtәri
vocabulary ʾo:\әkәb-jәliәri

(b) words ending in -ery:

dysentery ʾdәznәri
imagery ʾiːmйdәri
milkery ʾmilkәri
monastery ʾmәnәstәri

(c) all four syllable words ending in -tory:

dysentery ʾdәznәri
imagery ʾiːmйdәri

(d) the following other words ending in -ory:

allegory *әlәgiәri
and the following words of five or more syllable ending in tory:

admonitory әd′әmәnәtәri
commendatory kә′mәndә-
tәri
conspiratory kon′sliәtәri
or kon′әliәtәri
confirmatory kon′fәmә-
tәri
conservatory kon′so:vә-
tәri
consolatory kon′әlәtәri
contributory kon′triβju-
tәri

declamatory di′kәmәtәri
declaratory di′kәәtәri
defamatory di′fәmәtәri
depostitory di′pәzәtәri
derogatory di′rogenәri
demonstratory eks′plә-
tәri
descriptive eks′pәdәtәri
explanatory eks′plә-
tәri
inflammatory in′fәmә-

presbytery ʾpreξәtәri
savagey ʾsәvәidәri.

labatory әlә′bәtәri
(also ʾl.-әbәtәri)
objurgatory әb′dә:ɡәtәri
observatory әb′zә:әtәri
premonitory pri′mәnәtәri
repository ri′әәtәri.
APPENDIX C

EAR-TRAINING EXERCISES

When a person learns a foreign language, it is necessary for him not only to learn to pronounce the sounds of the language, but also to learn to recognize the various sounds when pronounced by others. If he cannot do this, he will never be able to understand properly what natives are saying to him.

For cultivating the capacity to recognize instantaneously and accurately the sounds of the foreign language, ear-training exercises are required. The only satisfactory type of exercise for this purpose is for the student to write down phonetically isolated sounds and nonsense words dictated by the teacher. A short exercise of this nature should form part of every pronunciation lesson.¹

When the student's difficulty is mainly with the vowels, a saving of time may sometimes be effected by numbering the vowels and diphthongs and asking the student to name the numbers of the vowels and diphthongs dictated. For ear-training in English sounds the following system of numbering is recommended (the student should have a copy of this table always ready at hand for reference):

```
  1 2 3 4 5 6 7 8 9 10 11 12
i: e æ a: o: u: ʌ ə ɔ
ei ou ai au ɔɨ
iə eə uə
```

Ear-training exercises should in the first instance only include the sounds of the language studied. As the student advances, other sounds may with advantage be introduced; he should pay special attention to the sounds of his own language.

The following are some specimen exercises (graduated):

I. ISOLATED ENGLISH SOUNDS AND DIPHTHONGS

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>u, æ, ə, ɪ, ʊ, ɛ, ɔ, ʌ, ɜ, ɔɪ, ʌɪ, ɔʊ, ɪə, ɛə, uə, ʌə, ɪ:</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II. EASY MONOSYLLABLES CONTAINING ONLY ENGLISH SOUNDS

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

¹ A test of this kind is always included in the examinations in English Phonetics and Spoken English for Foreigners at University College, London.
III. MORE DIFFICULT MONOSYLLABLES CONTAINING ONLY ENGLISH SOUNDS

tna, skr:ndg, t'ra:ld, gqaldz, gelpstf, zweildô, mlh, 3drilg, zmmluz, tsuafô, dö:mg, zdîmîj, dzyiâh, fkegQ, qqôft, strîndz, tsnêkk, f'neqf, pmôsk.

IV. DISyllABLES CONTAINING ONLY ENGLISH SOUNDS


V. WORDS OF THREE OR MORE SYLLABLES CONTAINING ONLY ENGLISH SOUNDS


VI. WORDS CONTAINING NON-ENGLISH SOUNDS


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, a are to be taken to have their "cardinal" values (as in French thè, tô, ãm Gôtt); r is to be rolled.


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 l.  3 For r see § 275.  4 For s see § 480.  5 For ç see §§ 226, 327.  6 For e see § 480.  7 For u see § 351.  8 For r see § 260.  9 For q see § 158.  10 For w has tongue-position of û but lips spread as for i.  11 For j see § 256.  12 " denotes nasalization (see Chap. XV).  13 For ñ see § 160 ff.  14 For ñ see § 156.  15 For e see § 149.  16 For l see § 61.  17 For m see § 61.  18 For ñ see § 225.
Appendix D

Specimens of Phonetic Writing

<table>
<thead>
<tr>
<th>Sound</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
</tr>
<tr>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>u</td>
<td>u</td>
</tr>
</tbody>
</table>

Script Forms of Phonetic Signs
iksperiment og prøvde til at få
bli minde af disse sætninger da
kon girje allt
absolutt bety prøvning af en
måde såspis af taim dan wud bi passel
without fonetiks.

Jespersen, How to teach a Foreign Language, p. 176.
APPENDIX E

LIST OF BOOKS, ETC., RECOMMENDED FOR THE STUDY OF ENGLISH PRONUNCIATION

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.

I. BOOKS ON PHONETIC THEORY

*§ —, English Sounds (Dent, London, 1911, 1 s.). Designed specially for children.
* 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.
* E. Krusninga, Handbook of Present Day English, Vol. 1 (Utrecht 1914, 4 s. 6d.).
*§ W. Viktor, 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).
I. Williams, Phonetics for Scottish Students (Maclehose, Glasgow, 1909). Contains phonetic texts.

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.).


§ —, *Intonation Curves* (Teubner, Leipzig, 1909, 2 s. 8 d.).

§ G. E. FURKEN, *Phonetic Transcription of Jespersen-Rodhe Engelsk Læsebok* (Fritze, Stockholm, 1907, 2 s. 9 d.).

§ E. R. EDWARDS, *Phonetic Transcription of Victor-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.).


§ —, *100 Poems for Children* (Teubner, Leipzig, 1909, 2 s.).


° O. JESPERSEN, *Engelske Lydkriftstykker* (Gyldendal, Copenhagen, 1910).


§ *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


§ H. MICHAELIS and D. JONES, *A Phonetic Dictionary of the English Language* (Meyer, Hannover, 1913, 6 s.).

J. Brynhildsen, *English and Danish Dictionary* (Gyldendal, Copenhagen).

J. A. AFZEKUS, *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.


A. Schröer, *Neuenglisches Ausdruckswörterbuch* (Winter, Heidelberg, 1913, 48 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. Vixen, *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 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. VERKIERE, Principes de la Métrique Anglaise, 3 vols. (Welter, Paris, 1909. 38 s. complete.)

8. BOOKS ON THE HISTORY OF ENGLISH PRONUNCIATION ¹

(a) THEORY
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.).
H. SWEKt, History of English Sounds (Oxford University Press, 1888, 14 s.).
§ W. VIKTOR, Shakespeare’s Pronunciation, Vol. 1 (Elwert, Marburg, 1906, 6 s.).
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
§ D. JONES, Scenes from Shakespeare in the Original Pronunciation (International Phonetic Association, 10 d.).
Phonetic Transcription of the first 300 lines of Chaucer’s Prologue to the Canterbury Tales in H. SWEKt, 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 26th, 1911. Time allowed 1 1/2 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 9 without any following 9 or 85? 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 1 1/2 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 1 1/4 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, y.

4. In what words does th have the value ð initially? Give six examples of initial ð 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.


1. How is the soft palate fixed 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 vulnerable 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."
INDEXES

ABBREVIATIONS USED IN THE INDEXES

adj., adjective
adv., adverb
App., Appendix
conj., conjunction
demonstr., demonstrative
Fr., French
Ger., German

Numbers (other than those preceded by “App.”) refer to paragraphs of the main part of the book. A number following an Appendix reference indicates a sub-section of that Appendix.

The following is the alphabetical order of phonetic symbols in the index of sounds:

[e], narrow phonetic symbol for tense e, 102 note 3.

eə, 540.

e:ə, 397.

e: formation, 382, 388; representation in spelling, 389; substitution of e:, 390; of ei, æi, ai, 21, 391; words for practising, 392; reduction to e, 540; length, 540, 546–548.

f, formation, 393; occurrence in English, 385, 394; substitution for e by foreigners, 395; occurrence in French, German, 395.

f, 21, 509.

fə, formation, 393, 394; representation in spelling, 394; variant fə, 396; incorrect substitution of c, c:ə, 397; length, 535–537. See also e, ə.

f, formation, 478; representation in spelling, 479; incorrect substitution of ə, ə, 480; absence of lip-rounding, 481; variant with “inversion”, 482; hints for acquiring, 481–480; words for practising, 487.

f, formation, 488, 490; representation in spelling, 489; incorrect varieties, 491–490; hints for acquiring correct pronunciation, 494, 501–507; use in English, 495–507: reduction of strong vowels to ə, 195–500.

ə, 515.

ə, 345.

əi, 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 gj, 157; of g, 158; words for practising, 159; absence of explosion, 187, 189.

g, 151, 157, 173, 179, 182.

g, 158.

h, formation, 44, 328; different varieties, 329, 330; representation in spelling, 331; incorrect substitution of x, 332; words for practising, 334; in group hj, 335; omission of, 21, 336, 337; voiced h, 338, 339, 767; weak variety following p, t, k (aspiration), 112, 125, 150.

h, 338, 339, 767.

i, formation, 365; representation in spelling, 366; relation to continental sounds, 367, 368; Cockney varieties ei, ai, 369; words for practising 370; length, 534 ff.

[i], narrow phonetic symbol for tense i, 92 note 1.

i, formation, 371; representation in spell-

[1], narrow phonetic symbol for lax i, 92 note 1.

i, 510.

i, 378, 379; incorrect foreign pronunciation, 380; words for practising, 381. See also i, ə.

j, 367.

j, formation, 356; relation to i, 357; representation in spelling, 359, 360; foreign mispronunciations, 362; words for practising, 363; change to ə after d, t, 523, 525, 527, 528, coaloces with s, z, to form ʃ, 3, 526, 527.

j, 156, 362.

k, formation, 146; representation in spelling, 147; incorrect substitution of e, 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 ʃ, 194, 196.

l-sounds in general, 230 ff.; formation of English L, 1, 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 a, au, 418; inverted l, 514, 515; lengthening l, 231. [of 564, 566.

l, 61, 247, 522.

l, 514, 515.

m, formation, 210; representation in spelling, 211; length 564, 566, 567.

m, 61, 212, 522.

n, formation, 218, 215; representation in spelling, 214; pre-dental variety, 218; in combination nj, 218; German palatalized variety, 220; words for practising, 221; length 553, 554, 557.

n, syllabic n, 626.

n, 217, 522.

n, 218, 219, 225, 227.

ŋ, formation, 222; representation in spelling, 223, 224; incorrect substitution of n, 225, 227; of nk, 228; words for practising, 229.

ŋ, 8, 452, 456.
 INDEX OF SOUNDS

a, formation, 448; occurrence in English, 449, 451. See also "o.

o, 509.

oo, 461, 540.

oi, 382, 461, 540.

ou, formation, 448, 449, 476; representation in spelling, 450; substitution of o', 452, 456; incorrect diphthongic pronunciations, 453, 456; methods of correction, 454, 455; words for practising, 458; length, 536 ff., 540, 541; reduction to o, 540, 541. See also o, u.

u, formation, 434; representation in spelling, 436; amount of lip-rounding, 436; incorrect foreign pronunciation, 437, 438; words for practising, 439; length, 534, 537, 539, 541.

a, 516.

a, formation, 429; representation in spelling, 430; incorrect foreign varieties, 431, 432; words for practising, 433.

[ə], narrow phonetic symbol for French 3, 509. [ə, 123.

ə, formation, 382, 440; representation in spelling, 441; incorrect substitution of əy, 442. See also ə, o, i.

ə, 496.

σ, 446, 470.

c, 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, 115; with closed glottis, 176, 177; pronounced without explosion, 184—186, 188; fausal explosion before m, 194; kymographic tracings, 766.

t-sounds, 248 ff., 345; representation in spelling, 250—253.

r (rolled r), 249; formation 254; use in English, 255; method of acquiring, 266, 267.

f, 522.

f [ə] (inverted fricative r), 269, 514.

[f] (fricative r), 249; formation 283; use in English, 256; method of acquiring, 264; words for practising, 268.

r (semi-rolled r), 249; formation 258; use in English, 258.

k (uvular rolled r), 249, 260, 262, 263. 296.

w (uvular fricative r), 249, 261—263.

s, formation, 294, 296; representation in spelling, 297—300; incorrect substitution of z, 300, 301; words for practising, 303.

j, formation, 308, 309; compared with s, 310, 312; representation in spelling, 313; in group tj, 190—198; incorrect substitution of ɔ, 315; palatalized variety, 316; words for practising, 317; derived from earlier sj, 523, 525—528.

t, formation, 121; representation in spelling, 122; words for practising, 123; 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, 186, 188; fausal explosion before u, 192; lateral explosion before l, 196; Cockney affricative variety, 204; lengthening of, 587.

t, 513—516.

tf, formation, 131, 207 ff.; words for practising, 132; derived form earlier tf, 207 (iii), 523, 525, 527, 528; kymographic tracings, 772.

θ, formation, 282; representation in spelling, 283; incorrect substitution of f, s, 286; words for practising, 287, 293.

u, formation, 459; representation in spelling, 460; French and German varieties, 461, 462; diphthongization in English, 463, 464; advanced variety, 462 note 6; words for practising, 466; length, 534 ff.; reduction to u, 540; relation to w, 348, 349, 352.

[u], 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 diphthongs au, 471 —475; in diphthongs an, ao, 405 ff., 450 ff.; incorrect substitution of w in auw, 416.

[u], narrow phonetic symbol for lax u, 92 note 1.

au, formation, 471; representation in spelling, 472; foreign mispronunciations, 473; substitution of oə, oə, o; oə, o, in English, 474; words for practising, 475. See also u, o.

ui, 462 note 6.

ui, 382, 540.

uw, 463.

v, formation, 278, 279; incorrect substitution of v, 279, 280; words for practising, 281; lengthening of, 557.

v, 20, 119, 201, 275, 279, 361.

w, formation, 345, 346, 348, 349; representation in spelling 347; amount of lip-rounding, 349; incorrect substitution of v, u, 551; of η, 368; mode of acquiring, 368; words for practising, 550.

m, 580.

w, 522. See also m.

x, 332.

y, 442.
INDEX OF SUBJECTS

a, pronunciation of letter, 380, 394, 399, 421, 430, 436.
Affricative consonants, 198 ff., 772.
Alphabets, unphonetic nature of, 5—9.
Alveolar consonants, 64. See also t, d, n, l, r, s, z, 3, j, 3, in index of sounds.
Artificial palate, 38 ff.
Aspirate, see h in index of sounds.
Aspiration of plosive consonants, 112 ff., 125 ff., 160 ff., 174; kymographic test for, 766.
Assibilated consonants, see Affricative consonants.
Assimilation, 518 ff.; affecting vocal chords, 519—524, 771; affecting position of tongue, 525—529; affecting position of lips, 530; incorrect, 534, 538. See, pronunciation of, 373 note 3.
b, pronunciation of letter, 117.
Baaing of sheep, 402.
Back of tongue, 33.
Back vowels, definition, 76; detailed description, 419 ff.
Bi-labial consonants, 64. See also p, b, m, 3, v, w, 3, q in index of sounds.
Blade of tongue, 33.
Breath, explanation of, 43, 47; methods of detecting, 49—52; exercises for distinguishing from voice, 61, 62; kymographic tests for, 766 ff.
Breathed plosives, difference from voiced plosives, 62; with voice when contact released, 172; unaspirated French initial, 173; aspirated English initial, 174. See also p, t, tf, c, k, in index of sounds.
Breathed sounds, 48 ff., 59 ff.
Breath-groups, 665—688.
Broad transcription, 14—16, App. A.
c, pronunciation of letter, 147.
Cacuminal sounds, 513 ff.; use by foreigners, 514, 515; method of correcting, 516.
Cerebral sounds, see Cacuminal sounds.
Classification of consonants, 59 ff.
Classification of vowels, 68 ff.
Close vowels, definition, 80. See also 1; ï, u; n, in index of sounds.
Cockney pronunciation, of t, 101 note 1, 204; of d, 204; of r, 369; of el, 391, of 3r, 397; of on, 458 note 1.
Compound words, stress of, 638—648.
Consonant, definition, 54; sounds falling under category of, 55; difference from vowel, 56; breathed and voiced, 59 ff.; detailed classification 63 ff.; length, 559—557.
Consonantal vowel, 105.
Cough, explanation of, 162.
d, pronunciation of letter, 135.
Dental sounds, definition, 64. See also t, d, n, l, r, 3, s, z, 3, j, 3, in index of sounds.
Devocalization of vowels, 329, 330, 333; of voiced consonants, 522. See also b, d, gg, m, n, r, s, 3, w, in index of sounds.
Diphthongs, nature of, 103—106; in English, 378—382, 388—392, 399—397, 404—418, 449—455, 463, 471—476. See also ei, en, on, an, on, 3n, 3n, en, un, in index of sounds.
e, pronunciation of letter, 369, 366, 364.
eu, pronunciation of group of letters, 122, 135 and note 1.
err, pronunciation of group of letters, 479.
Embouchure, 759.
Epiglottis, 32.
er, pronunciation of group of letters, 421, 479.
ccc, pronunciation of, 373 note 2.
Experimental phonetics, 35 ff.; apparatus for, 37 ff., 757 ff.
Exploratory bulb, 759.
fl, pronunciation of letter, 274.
Fanal plosion, 192 ff.
Fricative consonants, definition 65; detailed description, 271 ff.; partial devocalization when final, 340—342.
See also f, v, Θ, δ, ʃ, z, j, ʒ, r, ʢ, x, h, in index of sounds.

Front of Tongue, 38.

Front vowels, definition, 76; detailed description, 364 ff. See also i, 1, e, ə, a, y, ʊ, in index of sounds.

 Pronunciation, 142, 155 and note 2.

gh, pronunciation of group of letters, 274.

Glottal consonants, definition, 64. See also ʔ, h, in index of sounds.

Glottal stop, see ʔ, in index of sounds.

Glottis, 34.

A, pronunciation of letter, 381, 386, 387.

Half-close vowels, definition, 81. See also e, o, in index of sounds.

Half-open vowels, definition, 81. See also ð, ð, in index of sounds.

Hard palate, 31.


Implosive sounds, definition, 175; with closed glottis, 176, 177, 182.

Incomplete plosive consonants, 184 ff.

Inflection, see Intonation.

Instrumental phonetics, see Experimental phonetics.

Intonation, 669 ff.; definition, 689; range, 693—694; rules, 699—711; incorrect intonation of foreigners, 742—753; methods of analysing, 752 ff., 777 ff.

Inverted sounds, see Cacuminal sounds.

IV, pronunciation of group of letters, 479.

j, pronunciation of letter, 142.

k, pronunciation of letter, 147.

Kymograph, 37, 757 ff.

l, pronunciation of letter, 232.

Labial consonants, definition, 64. See also p, b, m, f, v, w, m, f, v, in index of sounds.

Labio-dental consonants, definition, 64. See also f, v, in index of sounds.

Laryngeal consonants, see Glottal consonants.

Laryngoscope, 37, 46.

Larynx, 32, 45. See also Breath, Voice, Whisper. See also ʔ, h, in index of sounds.

Larynx recorder, 763.

Lateral consonants, definition, 65. See also L-sounds in index of sounds.

Lateral plosion, 196 ff.

Lax vowels, 89—95. See also i, e, o, u, in index of sounds.

Length, 531 ff.; of vowels 533—551; of consonants, 552—557; lengthening of so-called "short" vowels, 542—545; mistakes in length made by foreigners, 558—560; rhythm and length, 546—561, 565, 566; phonetic representation of, 567—573; kymographic analysis of, 775, 776.

Lip-rounding, 88.

Liquid consonants, definition 66; detailed description, 208 ff. See also m, n, p, ʊ, l, r, in index of sounds.

L-sounds, see index of sounds.

m, pronunciation of letter, 211.

Mixed vowels, definition, 78; detailed description, 477 ff. See also ə, ə, in index of sounds.

Month measurer, 84.

n, pronunciation of letter, 214; mouillé 218, 227.

Narrow transcription, 13, App. A.

Nasal consonants, definition, 65; detailed description, 209 ff. See also m, n, p, ʊ, in index of sounds.

Nasalization, 509 ff.; in speech of foreigners, 510; methods of correcting, 511; kymographic tests for, 773, 774.

Nasalized vowels, 96, 509 ff.

Nasal olive, 759.

Neutral vowel, see a in index of sounds.

Ng, pronunciation of when medial, 224.


Oo, pronunciation of, 460, 468.

Open vowels, definition, 80. See also ə, ə, ə, ə, in index of sounds.

Organs of speech, 27 ff.; models of, 28.

Ow, or, pronunciation of groups of letters, 406, 450.

P, pronunciation of letter, 111.

Palatal consonants, definition, 64. See also r, j, p, ʊ, ʒ, in index of sounds.

Palate, hard, 31; soft, 31; artificial, 38 ff.; movements of soft palate, 96, 97; effect on vowel quality, 96.

Palatograms, 42, 86.

Past participle, formation of, 122, 185.

Ph, pronunciation of group of letters, 274

Pharynx, 32.

Phonetic theory, use of, 2.

Phonetic transcription, 2, 10—16.

Phonetics, definition, 3.

Plosive consonants, definition, 65, 109; voiced and breathed, 62; theory of, 167 ff.; nature of explosion, 169; addition of short h or vowel, 170; aspirated, 174; una-pirated, 172, 178; absence of explosion before another plosive, 184 ff.; faucal plosion, 193 ff.; lateral plosion, 196 ff.; with slow se-
paration of articulating organs, 198 ff.; detailed description, 110 ff. See also p, b, t, d, tf, d3, c, j, k, g, ?, in index of sounds.

Plural, rules for formation of, 284.

Post-dental consonants see Alveolar consonants.

Pre-dental consonants, 64. See also 0, ð, French t, French d, in index of sounds.

Pronunciation, diversities of, 19; educated and uneducated, 21; of men and women, 22; individual peculiarities, 23; different styles, 25, 26.

Public school pronunciation, 24 and note 1.

q, pronunciation of letter, 147.

Quadrant Indicator, 85.

Quantity, see Length.

r, when sounded and when not, 250—253; different pronunciations of, see r-sounds in index of sounds.

Reduction of vowels to a, 495 ff.

Resonance chamber, 68, 70.

Rhythm, effect on length, 546 ff.; effect on stress, 624 ff.

Rolled consonants, definition, 65; detailed description, 248 ff. See also r, n, in index of sounds.

Rounded vowels, definition, 88. See also a, o; o, u, w; y, ø, e, in index of sounds.

r-sounds, see index of sounds.

s, pronunciation of letter, 297—300, 302, 305, 313, 319, 521; silent letter, 301.

Semi-vowels, nature of, 58, 65, 272; detailed description, 343 ff. See also w, j, in index of sounds.

Sentence-stress, 649 ff.

sh, pronunciation of group of letters, 313.

Shortening of vowels, 537 ff.

Soft palate, 31; movements of, 96, 97; effect on vowel quality, 96.

Sonority, 55—58.

Spelling, unphonetic nature of, 5—9.

Spreading of lips, 88.


Stop, definition, 168.

Stress, 574 ff.; in simple words, 579—634; in compound words, 635—648; in the sentence, 649—684; double stress, 613—628, 689, 641, 644; influence of rhythm, 624—626, 645; difficulties of foreign's, 632—634, 647, 648; lists of words stressed according to rules in cases where exceptions are numerous, App. B.


Syllable sounds, 101.

Syllable, 99 ff.

i, pronunciation of letter, 122.

Tambour, 757, 758.

Teeth-ridge, 31.

Tense vowels, 89—95.

th, pronunciation of group of letters, 283, 284, 289.

Tip of tongue, 38.

Tongue, divisions of, 33; back of, 33; front of, 33; blade of, 38.

Trilled consonants, see Rolled consonants.

Triphthong, 107, 108.

-tw, pronunciation of, 130 note 1.

u, pronunciation of letter, 347, 360, 444, 460, 468.

Unaspirated plosive consonants, 172, 173.

Unrounded vowels, definition, 88.

ur, pronunciation of group of letters, 479.

Uvular consonants, definition, 64. See also n, h, in index of sounds.

Varieties of pronunciation, 19 ff.

Velar consonants, definition, 64. See also k, g, x, q, in index of sounds.

Vocal chords, 34, 43, 45.

Voice, explanation of, 43, 47; ordinary methods of detecting, 49—52; exercises for distinguishing from breath, 61, 62; kymographic tests for, 766 ff.

Voiced plosives, difference from breathed plosives, 178 ff.; amount of voice during stop, 178, 768; initial, 173; followed by breath when contact released, 181; final, 183. See also b, d, dg, j, q, in index of sounds.

Voiced sounds, 48 ff., 59 ff.

Voice-indicator, 51.

Voiceless sounds, see Breathed sounds.

Vowel, definition, 54 and note 3; difference from consonant, 56 and note 1 p. 12; classification, 68—98; clear and obscure quality, 72, 73; five main families, 74; vowel triangle, 75, 89; table of, 98; devocalized, 329, 330, 333; detailed description, 384 ff.; length, 533 ff.

w, pronunciation of letter, 347.

Weak forms of small words, 495 ff.

Whisper 43, 46, 54 note 3.

Windpipe, 32.

Word-stress, 579 ff. See also Stress.

x, pronunciation of letter, 147, 155.

y, pronunciation of letter, 359, 378, 408.

yr, pronunciation of group of letters, 479.

z, pronunciation of letter, 305.
INDEX OF WORDS TRANSCRIBED

A
405
abase 299
aborrence, -ent App. B, 2
object 581 II
able 678 (ii)
abominable 598
aborigines 305
about 489
above 444
absciss 581 I
abse 581 I
abse 581 II
abse 581 I
absent 581 II
absent-minded 689
absolute 380, 524
absolutely 162
absolve 627
absorbed App. B, 2
abstinence, -ent 585
absurd 587, 524
absurd (Fr.) 524
accent 581 I
access 581 I
accessory 604
accidence 585
accident 585
accompaniment 594 note 6
accomplish 534
account App. B, 1
accuracy 591
act 147
acknowledge 430
acre 270
act II 184
actor 489, 555
actuary App. B, 4 (u)
acumen 587
acute 607
add 135 note 1
address 580; App. B, 1
advent App. B, 1
adherence, -ent App. B, 1
adjacent 584; App. B, 2
adjourn 479
adjunct 581 I
administration 577
admirable 606
admiralty 591
admit 498
admonitory App. B, 4 (d)
ado 460
adulterer 604
advance App. B, 1
advancement 492
advent 581 I
adventure(some) 609, 671
adverb 581 I
adversary 603; App. B, 4(a)
adverse 581 II
advertisement App. B, 2
advertisements 610
advice App. B, 1
advocacy 591
adviser 587
affair 680; App. B, 1
affect 724
affiance 611 note 2
affluence, -ent 585
affray App. B, 1
aff right App. B, 1
affront App. B, 1
after 421, 668, 673
afterwards 489, 505
again 165, 682
aged (two words) 135 note 1
aggrandizement 610
agrandize 610
Agnes 305 note 2
ak 421
aisle 301
abse 305 note 2
absent; App. B, 2
albumen 587
albumen notes 524
all 435
alliance 611
allegiance 611
alligator 593
allegory App. B, 4 (d)
alliance 611 note 2
allow 580
alloy App. B, 1
all right 585 note 1, 631,
720
ally App. B, 1
alone 512
alongside 644, 678
already 636 note 2
alternate (adj. and vb.) 593 and note 2
aluminium 360
am 497
amateur 479 and note 5
ambidextrous 591
amen 620 and note 2
Amen Corner 620 note 2
amends App. B, 1
americanism 597
amicable 598
ammonia 611
among 444
amorphous 591
amour 583
Amsterdam 623
an 497, 671, 717
anathema 593
ancestral 597
anchor 223
ancient 313
and 25, 497, 649, 659 and
notes 2 and 3, 670
anecdote 524
anger 156 note 2
angle 244
animalism 597
anise 299
anniversary 604
annum 497 note 6
answer 425
antagonistic 577
antecedent 595
anticlimax 613
antiquity App. B, 4 (a)
antique 147
anxious 527
any 384
anything 659
anywhere else 499
aperture 527
apogee 608
apostle 593
apostate 587
apple 436
apparel 584
apparatus 493
apparent App. B, 2
appeal 580
appellate 593
appendage 584
appetite 598
applause App. B, 1
apple(s) 166, 709
apple-tree 657
appliances 611 note 2
applicable 606
appreciate 313 note 2
appreciation 313 note 2
apprentice 584
bureau 450
burlesque 607
burn 130
bush 468
business 373
busy 373
but 497
butcher 470
butter 447, 493 note 1
button 101
buttonhook 334
buy 120
by 497 and note 2
Byron 417
bystander 637
Byzantine 589

cab 400
cabal 583
cadet 583
cage 145
cajolery 604
cake 153
calf 232
call(ed) 439, 740
call 232
calumny 604
cannot 432, 504, 659 and note 1
canoc 460
can't 421, 659 and note 1
canton 621
Canton (two names) 622
and note 5
capable 115
capillary 604
capot 583
caprice 583
caravan 587
caravane 586
card 428
cardboard 541
care 394, 703
career 607
carass 583
cargo 158
caricature 629
Carlisle 622 and note 6
Carlyle 622
carnation 541
carousel 587
carried 373
carrot 582
cart 153
carthorse 638 (ii)
carve 428
case (Fr.) 173
cascade 607
case 299
cashier (sb. and vb.) 607
cassowary App. B, 4 (a)
castle 122
causality 591
catu(s) 298, 399; (Cockney)
204
catalepsy 591
catalogue 582
category App. B, 4 (d)
cathedral 587
Catholic 612
catholicism 596
cattle-show 638 (ii)
cauliflower 430
cave 153
cave (Fr.) 400
Cayenne 626
cease(s) 297, 303
ceaseless 302
celestial 528
celibacy 591
cell 300
celeft 582
compiler 313
cent 497 note 6 p. 96
cent (Fr.) 96
centenary 604 and note 3
centigrade 608
centre 489
centurion 601
ceremony 601
certain 195
certificate (sb. and vb.) 599
certification (two words)
578 note 3
c'est tout (Fr.) 333
Ceylon 583
chaplin 588
chain 264
clair 651
chalk 133
chamberlain 586
chamois 301 and note 11
champagne 313
Chancery Lane 651
chances 665
chandelier 313
chaos 298
chap 133
character 147
characteristic 629
characterization 589 and note 5
<table>
<thead>
<tr>
<th>Word</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>charm</td>
<td>133</td>
</tr>
<tr>
<td>chase</td>
<td>299, 500</td>
</tr>
<tr>
<td>chastise</td>
<td>583</td>
</tr>
<tr>
<td>chastisement</td>
<td>610</td>
</tr>
<tr>
<td>chawfleur</td>
<td>497</td>
</tr>
<tr>
<td>cheap</td>
<td>183</td>
</tr>
<tr>
<td>Cheapside</td>
<td>622</td>
</tr>
<tr>
<td>check</td>
<td>133</td>
</tr>
<tr>
<td>chemise</td>
<td>583</td>
</tr>
<tr>
<td>chemist</td>
<td>147</td>
</tr>
<tr>
<td>Chersonese</td>
<td>299</td>
</tr>
<tr>
<td>chevaux</td>
<td>(Fr.) 8 note 11</td>
</tr>
<tr>
<td>chew</td>
<td>360</td>
</tr>
<tr>
<td>chicanery</td>
<td>604</td>
</tr>
<tr>
<td>child</td>
<td>406</td>
</tr>
<tr>
<td>chin</td>
<td>133</td>
</tr>
<tr>
<td>Chinese</td>
<td>622</td>
</tr>
<tr>
<td>choir</td>
<td>147</td>
</tr>
<tr>
<td>choke</td>
<td>133</td>
</tr>
<tr>
<td>choose</td>
<td>133</td>
</tr>
<tr>
<td>chop</td>
<td>133</td>
</tr>
<tr>
<td>cough</td>
<td>274</td>
</tr>
<tr>
<td>Christendom</td>
<td>609</td>
</tr>
<tr>
<td>Christmas</td>
<td>147</td>
</tr>
<tr>
<td>chronological</td>
<td>500</td>
</tr>
<tr>
<td>chronology</td>
<td>500</td>
</tr>
<tr>
<td>chrysanthemum</td>
<td>293</td>
</tr>
<tr>
<td>chum</td>
<td>183</td>
</tr>
<tr>
<td>church</td>
<td>130, 772</td>
</tr>
<tr>
<td>churchyard</td>
<td>641</td>
</tr>
<tr>
<td>cigar</td>
<td>583</td>
</tr>
<tr>
<td>cinder</td>
<td>300</td>
</tr>
<tr>
<td>circumference</td>
<td>594</td>
</tr>
<tr>
<td>circumstance</td>
<td>683</td>
</tr>
<tr>
<td>circus</td>
<td>625</td>
</tr>
<tr>
<td>citizen</td>
<td>580</td>
</tr>
<tr>
<td>city</td>
<td>376</td>
</tr>
<tr>
<td>claimed</td>
<td>659</td>
</tr>
<tr>
<td>clandestine</td>
<td>589</td>
</tr>
<tr>
<td>Clarke</td>
<td>497 note 1 p. 97</td>
</tr>
<tr>
<td>class</td>
<td>421</td>
</tr>
<tr>
<td>clerk</td>
<td>421</td>
</tr>
<tr>
<td>clever</td>
<td>493 note 1</td>
</tr>
<tr>
<td>close (ab.)</td>
<td>299</td>
</tr>
<tr>
<td>close (adj.)</td>
<td>297, 299</td>
</tr>
<tr>
<td>close (vb.)</td>
<td>297</td>
</tr>
<tr>
<td>cloth(s)</td>
<td>284 note 1, 485</td>
</tr>
<tr>
<td>club</td>
<td>661</td>
</tr>
<tr>
<td>coal</td>
<td>246</td>
</tr>
<tr>
<td>coat</td>
<td>147</td>
</tr>
<tr>
<td>coattail</td>
<td>769</td>
</tr>
<tr>
<td>cocoa</td>
<td>716</td>
</tr>
<tr>
<td>cod</td>
<td>423</td>
</tr>
<tr>
<td>coerce</td>
<td>580</td>
</tr>
<tr>
<td>coffee</td>
<td>608</td>
</tr>
<tr>
<td>cognisance, -ent</td>
<td>585</td>
</tr>
<tr>
<td>coherence, -ent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>cohort</td>
<td>581 I</td>
</tr>
<tr>
<td>coiffure</td>
<td>588</td>
</tr>
<tr>
<td>coin</td>
<td>512</td>
</tr>
<tr>
<td>cold</td>
<td>153</td>
</tr>
<tr>
<td>collapse</td>
<td>580; App. B, 1</td>
</tr>
<tr>
<td>collar</td>
<td>489</td>
</tr>
<tr>
<td>collect (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>college</td>
<td>581 I</td>
</tr>
<tr>
<td>collier</td>
<td>608</td>
</tr>
<tr>
<td>colonel</td>
<td>479, 487 note 1</td>
</tr>
<tr>
<td>colour</td>
<td>444</td>
</tr>
<tr>
<td>comb</td>
<td>117</td>
</tr>
<tr>
<td>combattant</td>
<td>585</td>
</tr>
<tr>
<td>Combe</td>
<td>117 note 1</td>
</tr>
<tr>
<td>come(s)</td>
<td>444, 669</td>
</tr>
<tr>
<td>comfort</td>
<td>444</td>
</tr>
<tr>
<td>coming</td>
<td>700</td>
</tr>
<tr>
<td>command</td>
<td>421; App. B, 1</td>
</tr>
<tr>
<td>commandment</td>
<td>609</td>
</tr>
<tr>
<td>commensatory</td>
<td>App. B, 4(d)</td>
</tr>
<tr>
<td>comment (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>commentary</td>
<td>App. B, 4(d)</td>
</tr>
<tr>
<td>commerce</td>
<td>581</td>
</tr>
<tr>
<td>commission</td>
<td>690</td>
</tr>
<tr>
<td>committees (two words)</td>
<td>608 and note 4</td>
</tr>
<tr>
<td>commonalty</td>
<td>591</td>
</tr>
<tr>
<td>commonly</td>
<td>657</td>
</tr>
<tr>
<td>commune (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>commune (vb.)</td>
<td>581 III</td>
</tr>
<tr>
<td>compact (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>companion</td>
<td>500</td>
</tr>
<tr>
<td>company</td>
<td>444</td>
</tr>
<tr>
<td>comparable</td>
<td>606</td>
</tr>
<tr>
<td>compare</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>compass</td>
<td>444</td>
</tr>
<tr>
<td>compatible</td>
<td>600</td>
</tr>
<tr>
<td>comppeer</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>competence, -ent</td>
<td>685</td>
</tr>
<tr>
<td>competency</td>
<td>591</td>
</tr>
<tr>
<td>complacency</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>compulsion</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>complaint</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>complete</td>
<td>386</td>
</tr>
<tr>
<td>completeness</td>
<td>609</td>
</tr>
<tr>
<td>complex</td>
<td>581 II</td>
</tr>
<tr>
<td>compliance, -ent</td>
<td>611 note 2</td>
</tr>
<tr>
<td>compliment (ab. and vb.)</td>
<td>685</td>
</tr>
<tr>
<td>component</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>compose(d)</td>
<td>135 note 1, 580</td>
</tr>
<tr>
<td>composedly</td>
<td>135 note 1</td>
</tr>
<tr>
<td>compost</td>
<td>581 I</td>
</tr>
<tr>
<td>compound</td>
<td>581 I</td>
</tr>
<tr>
<td>comprehensiveness</td>
<td>609</td>
</tr>
<tr>
<td>compress (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>compulsory</td>
<td>604</td>
</tr>
<tr>
<td>comrade</td>
<td>608</td>
</tr>
<tr>
<td>conceit</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>concern</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>concerning</td>
<td>678</td>
</tr>
<tr>
<td>conciliatory</td>
<td>App. B, 4(d)</td>
</tr>
<tr>
<td>concise</td>
<td>299</td>
</tr>
<tr>
<td>conclave</td>
<td>581 I</td>
</tr>
<tr>
<td>conclusive</td>
<td>299</td>
</tr>
<tr>
<td>concord</td>
<td>581 I</td>
</tr>
<tr>
<td>concours</td>
<td>581 I</td>
</tr>
<tr>
<td>concrete (ab. and adj.)</td>
<td>581 I and II</td>
</tr>
<tr>
<td>concur</td>
<td>224</td>
</tr>
<tr>
<td>concurrence, -ent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>conduct (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>confederacy</td>
<td>591</td>
</tr>
<tr>
<td>conference</td>
<td>585</td>
</tr>
<tr>
<td>confidence, -ent</td>
<td>585</td>
</tr>
<tr>
<td>confines</td>
<td>581 I</td>
</tr>
<tr>
<td>confinatory</td>
<td>App. B, 4(d)</td>
</tr>
<tr>
<td>conflict (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>confiance, -ent</td>
<td>585</td>
</tr>
<tr>
<td>confuse</td>
<td>580</td>
</tr>
<tr>
<td>conger</td>
<td>155 note 2</td>
</tr>
<tr>
<td>congratulation</td>
<td>224</td>
</tr>
<tr>
<td>congregation</td>
<td>224</td>
</tr>
<tr>
<td>congress</td>
<td>224, 581 I</td>
</tr>
<tr>
<td>consignure, -ent</td>
<td>556</td>
</tr>
<tr>
<td>consipancy</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>conservatory</td>
<td>App. B, 4(d)</td>
</tr>
<tr>
<td>consider</td>
<td>489, 584</td>
</tr>
<tr>
<td>considerable</td>
<td>606</td>
</tr>
<tr>
<td>consistence, -ent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>consistency</td>
<td>App. B, 3(b)</td>
</tr>
<tr>
<td>consistory</td>
<td>604</td>
</tr>
<tr>
<td>consolatory</td>
<td>App. B, 4(d)</td>
</tr>
<tr>
<td>console (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>consolance</td>
<td>-ent 585</td>
</tr>
<tr>
<td>consort (ab.)</td>
<td>581 I</td>
</tr>
<tr>
<td>conspiracy</td>
<td>App. B, 3(b)</td>
</tr>
<tr>
<td>constable</td>
<td>444</td>
</tr>
<tr>
<td>constabulary</td>
<td>App. B, 4(a)</td>
</tr>
<tr>
<td>constantinople</td>
<td>623</td>
</tr>
<tr>
<td>constitute</td>
<td>128</td>
</tr>
<tr>
<td>Constitution</td>
<td>Lid 626</td>
</tr>
<tr>
<td>construe</td>
<td>581 I and note 8</td>
</tr>
<tr>
<td>consul</td>
<td>581 I</td>
</tr>
<tr>
<td>consummate (adj. and vb.)</td>
<td>593 and note 3</td>
</tr>
<tr>
<td>contact</td>
<td>581 I</td>
</tr>
<tr>
<td>contempt</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>content(s)</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>contest</td>
<td>581 I</td>
</tr>
<tr>
<td>context</td>
<td>581 I</td>
</tr>
<tr>
<td>continence</td>
<td>588</td>
</tr>
<tr>
<td>continency</td>
<td>591</td>
</tr>
<tr>
<td>Word</td>
<td>Page(s)</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>continent</td>
<td>585</td>
</tr>
<tr>
<td>continent, -ent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>contour</td>
<td>581 I</td>
</tr>
<tr>
<td>contra</td>
<td>497 note 5</td>
</tr>
<tr>
<td>contract (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>contradictory</td>
<td>504</td>
</tr>
<tr>
<td>contrast (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>contribute</td>
<td>589</td>
</tr>
<tr>
<td>contribution</td>
<td>611</td>
</tr>
<tr>
<td>contributory</td>
<td>App. B, 4 (d)</td>
</tr>
<tr>
<td>contrite</td>
<td>581 II</td>
</tr>
<tr>
<td>control</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>controversy</td>
<td>591</td>
</tr>
<tr>
<td>contumacy</td>
<td>591</td>
</tr>
<tr>
<td>convalescence</td>
<td>594</td>
</tr>
<tr>
<td>convenient</td>
<td>611</td>
</tr>
<tr>
<td>convene</td>
<td>581 I</td>
</tr>
<tr>
<td>conversant</td>
<td>585</td>
</tr>
<tr>
<td>converse (sb. and adj.)</td>
<td>581 I</td>
</tr>
<tr>
<td>conversely</td>
<td>620</td>
</tr>
<tr>
<td>convert (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>convex</td>
<td>581 II</td>
</tr>
<tr>
<td>convict (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>cowboy</td>
<td>581 I</td>
</tr>
<tr>
<td>cooked</td>
<td>191</td>
</tr>
<tr>
<td>cooking</td>
<td>153</td>
</tr>
<tr>
<td>cool</td>
<td>153</td>
</tr>
<tr>
<td>Coombe</td>
<td>117 note 1</td>
</tr>
<tr>
<td>cooperate</td>
<td>102</td>
</tr>
<tr>
<td>copter</td>
<td>607</td>
</tr>
<tr>
<td>cor</td>
<td>260</td>
</tr>
<tr>
<td>corn</td>
<td>221</td>
</tr>
<tr>
<td>Cornhill</td>
<td>622</td>
</tr>
<tr>
<td>corollary</td>
<td>604</td>
</tr>
<tr>
<td>corps (sing.)</td>
<td>301, (plur.)</td>
</tr>
<tr>
<td>correct</td>
<td>580</td>
</tr>
<tr>
<td>correspondent</td>
<td>594</td>
</tr>
<tr>
<td>corrigible</td>
<td>599 and note 2</td>
</tr>
<tr>
<td>cost</td>
<td>319 note 1</td>
</tr>
<tr>
<td>cost 3</td>
<td>319 note 1</td>
</tr>
<tr>
<td>cost 4</td>
<td>319 note 1</td>
</tr>
<tr>
<td>cost 5</td>
<td>319 note 1</td>
</tr>
<tr>
<td>côte (Fr.)</td>
<td>452</td>
</tr>
<tr>
<td>cotton</td>
<td>433</td>
</tr>
<tr>
<td>couch</td>
<td>133</td>
</tr>
<tr>
<td>couchee</td>
<td>608</td>
</tr>
<tr>
<td>cough</td>
<td>274, 435</td>
</tr>
<tr>
<td>could</td>
<td>497</td>
</tr>
<tr>
<td>couldn't</td>
<td>504 note 1</td>
</tr>
<tr>
<td>country</td>
<td>444</td>
</tr>
<tr>
<td>couple</td>
<td>444</td>
</tr>
<tr>
<td>courage</td>
<td>444</td>
</tr>
<tr>
<td>courageous</td>
<td>611</td>
</tr>
<tr>
<td>courant</td>
<td>583</td>
</tr>
<tr>
<td>courier</td>
<td>468</td>
</tr>
<tr>
<td>course</td>
<td>299, 435</td>
</tr>
<tr>
<td>courteous</td>
<td>479</td>
</tr>
<tr>
<td>courtesy</td>
<td>497</td>
</tr>
<tr>
<td>courteous</td>
<td>587</td>
</tr>
<tr>
<td>courtier</td>
<td>608</td>
</tr>
<tr>
<td>courts</td>
<td>661</td>
</tr>
<tr>
<td>cousin</td>
<td>444</td>
</tr>
<tr>
<td>covenant</td>
<td>444, 585</td>
</tr>
<tr>
<td>cover</td>
<td>444</td>
</tr>
<tr>
<td>coveet</td>
<td>444</td>
</tr>
<tr>
<td>covery</td>
<td>444</td>
</tr>
<tr>
<td>cow</td>
<td>406</td>
</tr>
<tr>
<td>cowardice</td>
<td>586</td>
</tr>
<tr>
<td>crease</td>
<td>399</td>
</tr>
<tr>
<td>create</td>
<td>583</td>
</tr>
<tr>
<td>créer (Fr.)</td>
<td>102</td>
</tr>
<tr>
<td>crew</td>
<td>460</td>
</tr>
<tr>
<td>cricket bat</td>
<td>661</td>
</tr>
<tr>
<td>crie</td>
<td>406</td>
</tr>
<tr>
<td>crinoline</td>
<td>589</td>
</tr>
<tr>
<td>criticize(s)</td>
<td>632</td>
</tr>
<tr>
<td>crosier</td>
<td>608</td>
</tr>
<tr>
<td>croup</td>
<td>460</td>
</tr>
<tr>
<td>cuckoo</td>
<td>608</td>
</tr>
<tr>
<td>cue</td>
<td>466</td>
</tr>
<tr>
<td>cuffs</td>
<td>£21</td>
</tr>
<tr>
<td>culinary</td>
<td>App. B, 4 (a)</td>
</tr>
<tr>
<td>cupboard</td>
<td>489</td>
</tr>
<tr>
<td>curator</td>
<td>587</td>
</tr>
<tr>
<td>curb</td>
<td>487</td>
</tr>
<tr>
<td>curse(s)</td>
<td>475, 517</td>
</tr>
<tr>
<td>curiosity</td>
<td>298</td>
</tr>
<tr>
<td>curious</td>
<td>472</td>
</tr>
<tr>
<td>curl</td>
<td>153</td>
</tr>
<tr>
<td>curmudgeon</td>
<td>587</td>
</tr>
<tr>
<td>curve</td>
<td>269</td>
</tr>
<tr>
<td>cushion</td>
<td>468</td>
</tr>
<tr>
<td>customary</td>
<td>App. B, 4 (a)</td>
</tr>
<tr>
<td>cut 444</td>
<td></td>
</tr>
<tr>
<td>cycloidal</td>
<td>587</td>
</tr>
<tr>
<td>daffodil</td>
<td>586</td>
</tr>
<tr>
<td>dagger</td>
<td>155 note 2</td>
</tr>
<tr>
<td>daisy</td>
<td>389</td>
</tr>
<tr>
<td>damp</td>
<td>403</td>
</tr>
<tr>
<td>dare</td>
<td>140</td>
</tr>
<tr>
<td>daresay</td>
<td>620</td>
</tr>
<tr>
<td>dark</td>
<td>428</td>
</tr>
<tr>
<td>darning-needle</td>
<td>638 (ii)</td>
</tr>
<tr>
<td>dash 417</td>
<td></td>
</tr>
<tr>
<td>date</td>
<td>140</td>
</tr>
<tr>
<td>dawned</td>
<td>221</td>
</tr>
<tr>
<td>day 382; (Cockney)</td>
<td>391</td>
</tr>
<tr>
<td>daybreak</td>
<td>637</td>
</tr>
<tr>
<td>dead-beat</td>
<td>639</td>
</tr>
<tr>
<td>deaf</td>
<td>387</td>
</tr>
<tr>
<td>deal 140</td>
<td></td>
</tr>
<tr>
<td>dear</td>
<td>140</td>
</tr>
<tr>
<td>dear</td>
<td>140</td>
</tr>
<tr>
<td>death</td>
<td>487</td>
</tr>
<tr>
<td>debate</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>debauch App. B, 1</td>
<td></td>
</tr>
<tr>
<td>debauchery</td>
<td>604</td>
</tr>
<tr>
<td>debris</td>
<td>301</td>
</tr>
<tr>
<td>debt</td>
<td>140</td>
</tr>
<tr>
<td>decay</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>deck</td>
<td>651</td>
</tr>
<tr>
<td>decease</td>
<td>299</td>
</tr>
<tr>
<td>deciet</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>December</td>
<td>587</td>
</tr>
<tr>
<td>deceny</td>
<td>App. B, 3 (a)</td>
</tr>
<tr>
<td>declaratory</td>
<td>App. B, 4 (d)</td>
</tr>
<tr>
<td>declaratory</td>
<td>App. B, 4 (d)</td>
</tr>
<tr>
<td>decline</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>decay</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>decrease (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>decrease (sb.)</td>
<td>581 I</td>
</tr>
<tr>
<td>decrease (sb.) and note 3</td>
<td></td>
</tr>
<tr>
<td>decrease (vb.)</td>
<td>299</td>
</tr>
<tr>
<td>decree</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>deductible</td>
<td>600</td>
</tr>
<tr>
<td>deed</td>
<td>135</td>
</tr>
<tr>
<td>deem</td>
<td>370</td>
</tr>
<tr>
<td>deer</td>
<td>185</td>
</tr>
<tr>
<td>defalcate</td>
<td>593</td>
</tr>
<tr>
<td>defamatory</td>
<td>App. B, 4 (d)</td>
</tr>
<tr>
<td>default</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>defeasible</td>
<td>600</td>
</tr>
<tr>
<td>defeat</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>defect</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>defence</td>
<td>580; App. B, 1</td>
</tr>
<tr>
<td>defensive</td>
<td>580 and note 1</td>
</tr>
<tr>
<td>deference</td>
<td>585</td>
</tr>
<tr>
<td>defiance, -ant</td>
<td>611 note 2</td>
</tr>
<tr>
<td>deficieny</td>
<td>611</td>
</tr>
<tr>
<td>delile</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>definite</td>
<td>588</td>
</tr>
<tr>
<td>degeneracy</td>
<td>591</td>
</tr>
<tr>
<td>degree</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>deliberate (adj.)</td>
<td>373 note 3</td>
</tr>
<tr>
<td>deliberately</td>
<td>373 note 3</td>
</tr>
<tr>
<td>delicacy</td>
<td>591</td>
</tr>
<tr>
<td>delight</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>delinquency</td>
<td>App. B, 3 (b)</td>
</tr>
<tr>
<td>delinquent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>delivery</td>
<td>604</td>
</tr>
<tr>
<td>debuge</td>
<td>360</td>
</tr>
<tr>
<td>demand (sb.)</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>demense</td>
<td>301</td>
</tr>
<tr>
<td>demise</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>democracy</td>
<td>App. B, 3 (b)</td>
</tr>
<tr>
<td>demoniacal</td>
<td>611</td>
</tr>
<tr>
<td>demonstrate</td>
<td>593</td>
</tr>
<tr>
<td>demur</td>
<td>App. B, 1</td>
</tr>
<tr>
<td>demure</td>
<td>583</td>
</tr>
<tr>
<td>dense</td>
<td>299</td>
</tr>
<tr>
<td>departure</td>
<td>609</td>
</tr>
<tr>
<td>dependency</td>
<td>App. B, 3 (b)</td>
</tr>
<tr>
<td>dependency, ent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>dependency</td>
<td>App. B, 3 (b)</td>
</tr>
<tr>
<td>depends</td>
<td>649</td>
</tr>
<tr>
<td>deponent</td>
<td>App. B, 2</td>
</tr>
<tr>
<td>depository</td>
<td>App. B, 4 (d)</td>
</tr>
<tr>
<td>depreciatory</td>
<td>604</td>
</tr>
<tr>
<td>der (Ger.)</td>
<td>21</td>
</tr>
<tr>
<td>Derby</td>
<td>421</td>
</tr>
<tr>
<td>derogatory</td>
<td>608; App. B, 4 (d)</td>
</tr>
</tbody>
</table>
Index of Words Transcribed

descendent App. B, 2
descending 630 and note 1
descent App. B, 1
description 556
desert (wilderness) (sb. and adj.) 581 and II
desert (that which is deserved) App. B, 1
deserve 487
desirable 417
desire App. B, 1
desirous 591
despair App. B, 1
despatch App. B, 1
despicable 606
despond App. B, 1
despondency App. B, 3 (b)
dessert 305
detail 581 I and note 4
determine(d) 589, 740
detriment 585
devastable 599
devouring 417
devote 466
diamond merchant 661
diaphragm 417
diary 417
did(n’t) 678, 703
differ 581 III
difference, -ent 585
difficulty 591
diffidence, -ent 586
diffuse (adj. and vb.) 580
digging 165 note 2
dignitary App. B, 4 (a)
diminish 584
dism 413
dining-room 637
dinner table 638 (ii), 648
diplomatic 626
direction 709
directory 604
disappearance 627
disaster 659
disastrous 591
discard (sb.) 581 I
discharge App. B, 1
disciplinary 604
discipline 588
disclose 580
disconnect 613
discontented 613
discord 581 I
discount (sb. and vb.) 581 I and III
discourage 615
discourse App. B, 1
discovery 604
disclaim App. B, 1
disease(s) 307; App. B, 1.
disembark 613
disfigure 584
disgrace(ful) 633; App. B, 1
disguise App. B, 1
disgust App. B, 1
dish 377
dishhearten 584
disloyal 613 and note 2
dismay App. B, 1
display App. B, 1
disposable 606
disputant 585
-dispute App. B, 1
dissent App. B, 1
dissolve 306
dissolement App. B, 2
dissonance, -ant 585
distance (sb. and vb.) 581 I and III
distant 581 II
distinguishes 609
distress App. B, 1
distribute 589
distribution 627
district 581 I
disturbance 584
ditch 133
divide 583
diverge 580
divergence, -ent 584; App. B, 2
divine 583
divorce App. B, 1
do 460, 490 note 5, 497, 678 (i), 714
Dodo 740
doe 450
deer 475
does(n’t) 444, 497, 529, 704
dog(s), -s 430, 521, 650
doing 678 (iv), 697
doll 544, 450 note 2
domain 583
done 140
dominant 586
done 444
don’t 450, 530
doom 140
door 435, 514, 515
door handle 661
dort (Ger.) 431 note 1
dose 299
double 444
doubt 128
douche 460
dough 450
douse 299
doute (Fr.) 178
dove 444
down 140; (Cockney) 204
downhill 644
Downing Street 667
dowry 417
dozens 444
drama 421
draught 274, 421
draw(s) 539, 772
drawer (two words) 439 and note 4
drawers 439 note 4
drawing 539
drawing-room (two words) 539 note 1
drive 715
Droitwich 142 note 2
drug 264
duel 360
duet 583
duke 153
dull 244
Dundee 622, 625
duration 472, 541
during 474, 673
dust 140
dysentery App. B, 4 (a)

E

each 133.
eager 155 note 2
eagle 244
ear 186
earn 479
earth 394 note 1
ease 540
easily 437
east 366
easy 305
eat(s) 166, 207
ebbed 186
economic 611
edge 142
Edward 497 note 1 p. 97
effect 580; App. B, 1
efficacy 591
effervescence 607
effe App. B, 1
efficacy 591
effort 581 I
effrontsry 604
effulgence, -ent App. B, 2
egg(s) 159, 740
egg-cap 189, 768
genereal 581 I
eider 406
eight 546
eighteen 546, 620
eighth 122, 772
eights 772
either 406 and note 1
Elbe (Fr.) 183
eleemosynary App. B, 4 (a)
greenhouse 638 (i), 645
Greenwich 142
grilled 740
grimace 583
groom 468
gross 803
grosse (Fr.) 8 note 9
ground 100
group 460
grouse 299
growth(s) 284 (iv), 450
guard 159
guess 159
guide 413
guitar 588
gum 155
gun 221
gut (Ger.) 461

H

H 138, 772
habitual 611
had 386, 497, 701
Hades 806
hair 334
hairbrush 637
half 421
half-finished 613
halfpenny 498
hall 834
hall 430
halter 232
ham 564
hand 221
handkerchief 223
handle 661
hang 403
hanging 224
happy 116
harbour 498
hard 230, 514, 515
hare 834
hark 269
harm 564
harmonium 611
has 305, 497, 663, 678 (i)
haste 399
hasten 122
hat 334
hay(m'nt) 399, 497, 649
note 1, 678
hay 334
he 381, 683, 725
head(s) 340, 884
health(s) 244, 284 (ii)
hear 881
heard 479
heart 421
hearth(s) 284 (ii) 421
heat 584

heath(s) 284 (iv), 287
hedge 339
hedgehog 834 and note 1
heed 370
hegemony 602
height 406
heir 581
help 334
henceforth 644
henceforward 644
Henry 256
her 386, 497
here 384
hereabouts 644 note 2
hereafter 636 note 2
hereby 644
hereditary App. B, 4
herein 644
herein (Ger.) 163 note 1
hereinafter 644
heretic 612
herschel 612 note 4
heretofore 644
hereupon 644
Hertford 421
honesty 591
how 385
hiccup 111, 444
hid 534
hidden 195.
hide 537
hiding 140
high 382
higher up 414
hill 377
him 251 note 3, 725
himself 636 note 2
hint 564
hirse 608
his 298, 544, 669, 668, 671
historical 357
hit 350
hither 292
hoard 534
Hobborn 282 and note 3
hold 334
hollow 582
holm 232
home 460
home-made 639
honest 331
honey 444
honorary App. B, 4 (a)
honour 381, 489
hood, -hood 468, 544
hook 390
hop 483
hope 458
hören (Ger.) 480 note 1
horizon 337, 497 note 4
p. 97

horrible 489
horse(s) 373, 564
horseshoe 699
hostel 319
hot 334
hotel 337
hour(s) 331, 705
house (ab.) 299
house (vb.) 587
housekeeper 637
how 415
how do you do? 461
however 678
hubbub 120
hue 335
huge 327, 335, 360
Hugh 335
huit (Fr.) 353
hullo 629
human 327, 335
hundred 339
hunger 155 note 2
hurry 444
hurt 334
hussar 305
hut 334
Hütte (Ger.) 442
hyacinths 298
Hyde Park 651
hypocrisy 590
hypotenuse 299

I

I 386
ich (Ger.) 335
ici (Fr.) 367
idea(s) 305, 381, 511 and note 5
idle 406
idol 641
idolater 610
if 365
ignite 583
ignominy 591
ignorance 219
ignorance (Fr.) 219 note 2
ignorant 585
illumine 589
illegal 613
illusory 604
imagery App. B, 4 (b)
imaginary App. B, 4
imagine 589
immediately 549, 551
immense 680
imminence, -ent 585
impact 581 I
imperceptible 618
imperialist 593
impeccable 581 II
implement 585

14 *
implied (ly) 135 note 1
import (sb.) 581
importance 649
important 561
impossible 617
impost 581 I
imposture 585
impress (sb.) 581 I
imprint (sb.) 581 I
imprison 584
imprudence, -ent App. B, 2
impudence, -ent 585
imprison 581 I
impose 581 I
impost 581 I
imprisonment 585
inebriate 593
incense (sb.) 581 I
incidence, -ent 585
incline App. B, 1
incoherent 595
income 581 I and note 1
increase (sb.) 299
increase (vb.) 299
increment 585
incumbent App. B, 2
indecent App. B, 2
indolent 595
index 581
industrious 521, 625
indigence 585
indignant 584
indolence, -ent 585
indoors 544
indulgence, -ent App. B 2
inexperienced 613
infamous 590
infant 581 I
infusion 585
inferior 611
infernal 584
infancy 604
infame 589
inflammatory App. B, 4 (d)
influence 585
influx 581 I
infrequent App. B, 2
inpress 581 I
inherent App. B, 3
ink 223
inkpot 187
inland 620, 624
inland 581 II
immune 581 I
innocent 581 II
innate 620
innocence, -ent 585
innocency 591
inordinate 615
inroad 581 I
insect 581 I
inside 644, 645
insight 581 I
insincere 613
insipid 584
insistent App. B, 2
insolence, -ent 585
insolvent App. B, 2
instance 580, 581 I
instant (sb. and adj.) 581 I
and II
instead 581 I
instant 581 I
instrument 585
insufficient 613
insult (sb.) 581 I
integral 585
intelligent 739
intent App. B, 1
interested 589
interference 595
intermediate 873 note 3
intermingle 618
internal 587 note 7
interval 585
intestate 593
intestine 589
intimacy 591
intimate (vb. and adj.) 373
note 3
into 652 note 2, 671 and
note 1
intricacy 591
introduce 669
introduction 604
innovatory, -ly 516
invoice 581 I
involute 433 and note 4
Ipswich 142 note 2
ironmonger 599
irregularity 618
irreligious 613
is 162, 305, 520, 644, 546,
665, 670
island 301
isle 301
isn’t 645, 709
isomorphism 597
it 373
itinerant 594 and note 3
itinerary App. B, 4 (a)

J
jabon (Spam.) 332
Jackson 145
jacket 555
jam 510, 542
James 145
January App. B, 4 (a)
Japan 585
jar 145
jaw 112, 772
jealous 582
jeer 145
jellyfish 637
jet 142
jig 145
job 145
Job 145 note 3
jocose 299
John 433
joined 512
joint-tenant 618
joke 145
journal 479
journey 479
judge 447
judgment 142
judicial 611
jump 254
July 583
jump 142
jumper 554
June 560
jurisprudence 595 and
note 9
just 145, 529

K
keen 370
Keir 581
kept 387
kelp 487
kernel 197
kettle 197
kettle-holder 637
Kew 486
key 586
kay-hole 587
kill 153
kind 418
king 147
kingdom 150
kingfisher 598 (3)
kitten 377
knew 784
knife 221
knot 377
know 450
knowledge 490, 582
knucke 243

L
lu (Fr.) 407
laboratory 604 and note 6
App. B, 4 (d)
labour 119
lace 564
lad 542
ladder 139
ladies 375
laid 564
lamb 408
myth 487
Myrtle 479
mysterious 611

N
name 221
nap 403
Napier 608
nasty 428
nation 313, 525
nationalist 593
native 128
natural 527
naturalist 593
naturalize 593
nature 130 note 1
near (er) 252, 381
nearly 250
necessary 609
necessary 302; App. B, 4 (a)
neck 387
cercumancy 591
need 370
negligence 586
negotiate 313 note 2
negotiation 313 note 2
neighbour 892
neither 406 and note 2
net 221
neuf (Fr.) 480 note 1
never 557
new 221
Newcastle 638 and note 1
Newquay 622 note 8
next 717
nice 418
niece 7 note 6
night 406
nine 546
nineteen 546
no 458
noble 450
nobody 546
nocturnal 587
non-conformist 593
none 444
nonsense 499
nook 470
noon 466
noose 299
nor 436, 669 and note 1
north 237
northern 289
North Western 651
Norwich 142
note 430, 497 note 3 p. 96, 504 and note 1
note (Fr.) 123
nothing 444

notice 708
nourish 444
November 451
now 413, 633
now-a-days 417
number(s) 554, 557
numeral App. B, 4 (a)
num 214
nurse 221
Nuss (Ger.) 8 note 13
nut 221

0
oath(s) 284 note 1, 289
oatmeal 195
obedience 591
obese 299
obey 461
object (sb.) 581 I
object (vb.) 654
obligatory App. B, 4 (d)
obligatory 604
oblivion 611
oblong (sb. and adj.) 581

1 and II
observatory App. B, 4 (d)
observe 305, 524
observe (Fr.) 524
obstacle 585
obstinate 591
obtain 680
ob-tuse 299
obverse 581 I
occasion 319
occupancy 591
occupant 585
occupy 590
occu py 580
occurrence App. B, 2
ocean 813, 527
o’clock 699
October 587
œuf (Fr.) 445
of 432, 497, 670, 676, 708
of course 529
off 485
offence App. B, 1
offend 580
offensive 630 and notes 1 and 2
offer 581 III
often 485
oh 450
oignon (Fr.) 218 note 1
oil 441
Oise (Fr.) 414
old 455, 721
old-fashioned 439
omelette 608
omit 580
omniscience 611
on 497 note 3 p. 95, 504
point-blank 644
poker 645
police 588
polite 583
political 612
political 612 note 4
Poll 450 note 2
polytheism 597
polytheist 593
pommel 444
poo 512
pool 466
poor 472, 474, 494
populace 586
porch 133
pore 439
port (Fr.) 431 note 1
portentous 591
portions (Fr.) (sb. and vb.) 8 note 10
possess 305
possessory 604
possible 588
post 460
postdate 620
potato 128
poulterce 450
poultry 450
pound 413
pour 485
power (full) 415, 417
pract ce 682
practise 299
praise 174
prayer (two words) 540
note 2
precedence 584 and note 2
App. B, 2
precedent (sb. and adj.) 585; App. B, 2
precentor 584
precept 581 I
precinct 581 I
precious 313
precise 299
preface 581 I
preface 581 I
preferable 505, 506
preference 583 and note 2
prefix (sb.) 581 I
preliminary App. B, 4 (a)
prelude 581 I
premature 585
premier 608
premise(s) (sb.) 299 and
note 6
premonitory App. B, 4 (d)
prepaid 613
preparatory App. B, 4 (d)
prose 581 I
presbytery App. B, 4 (b)
presence 581 I
present (sb. and adj.) 500
present (vb.) 500
preserve App. B, 1
presidency 591
president 585
pressure 527
presume 466
pretence App. B, 1
pretext 581 I
pretty 373
prevalence, -ent 585
previous 581 II
primaer 587
princess(es) 621 and note 4,
625
print 128
prism 212
private 373
privilege 586
prize 561
probate 581 I
problem 581 I
proceeds (sb.) 581 I
process 581 I and note 2
produce (sb.) 581 I
produce (vb) 462
product 581 I
professorship 609
professor 581 III
profile 581 I
profit (sb. and vb.) 128
profuse 299
progress (sb.) 581 I
prohibit 584
project (sb.) 581 I
projectile 588
prolact 581 II
prolix 581 II
prologue 581 I
pronunciation 607
prominence, -ent 585
prompt 299
promontory 603
pronoun 581 I
pronounce 489
pronunciation 313 note 2,
589 note 1
prophet 128
proprietary 604
proprietary App. II, 4 (a)
prosecution 632
prosect(y) 588
prospect 581 I
prosper 582
prostrate (adj.) 581 II
protest (sb.) 581 I
Protestant 585
prove 281
proverb 460
providence, -ent 585
province 581 I
provincial 313
provost 581 I
psalm 503
psychology 111 note 1
pramigun 111
public 115
publish 582
pudding 445
pull 115
pulmonary App. B, 4 (a)
pulpit 244
purchase 299, 600
quar 472
Puritanism 597
purpose 299
pursue 115
pursue 583
push 470
put 468
pyramid 586
pyrotechny 591
Q
quality 430
quail 232
quart 435
quarter 147
quartet 583
quatre (Fr.) 270
query 368
queen 147
Quelle (Ger) 351
question 297
quintet 553
quite 547
R
race 268
raff 268
railway 392
raising 725
raise 306
ram 582
ran 221
rapier 608
rare 394
rarity 268
rash 403
raspberry 111
rate 656
rather 421
rationalist 593
rattle 197
rauchen (Ger.) 8 note 12
raw 435
read (present, past) 268
657
reader 185
ready 549
real 381
really 250, 876, 717
INDEX OF WORDS TRANSCRIBED

thereafter 636 note 2
thereby 614
therein 644
thereupon 644
these 370
they 289, 392
they are 701
thin 321
thing(s) 557
think(s), -ing 432, 649, 657
third 287
thirst 487
thirteen 620
thirty 287
this 289, 297
thistle 122
thither 292
Thomas 122
thong 287
thorn 287
thorough 444
those 630
those 413,
thought 336
thousand 413
Third (Ger.) 395
three 497 note 2 p. 96
threepence 373
through 460
throughout 636 note 2
thumb 447
thunderstorm 637
thus 447
thy 413
thyme 122
tie 413
tiger 155 note 2
tight 772
till 725
timber(s) 497 and note 8 p. 97
tin 128
tip 377
tiring 415 note 5
to 480, 490 note 5, 497
and note 4 p. 97, 674,
707, 724
toast 450
today 495
together 490 note 6, 495
told 699
tomato 421
tomb 460	on 444
Tonbridge 444
tone 468	
tongue 444
too 460
took 470
top 453
topmost 193, 498
tortoiseshell 529
tortoise-shell 529
tortoise 299
tot (Fr.) 8 note 11
touch 444
tough 274, 444
tour 472
town 406
traders 139
trade 580
train 264
traintresses 772
transcendence, -ent App. B, 2
transcript 581
transferring 417
town 406
trader 139
traduce 444
translating 289,
traject 193,
translucency 619
translate 590
translucent App. B, 2
transparency App. B, 3 (b)
transparent App. B, 2
transport (sb.) 580 I and
note 5
travelling, App. B, 2
traveller 581
transit 581 I
transition 319 and note 2
translate 590
unaccountable, -iy 616
unaccountably 616
uncouth 460
under 512
underestimate 613
underestimate 613
under-secretary 613
understand 657.
undertaker 610
undertaking 610
undoubtedly 615
undervalued 615
unfeignedly 135 note
unfortunate 617
unfrequented App. B, 2
unfruitful 615
ungrateful 224
uniform 360
unite 583
universe 633
unknown 613, 624
unless 583, 628
unobjectionable 613
unpack 613
until 583
unusual 617
unwieldy 615
up 177
uphill 644
uphold 580
upland 581 I
upon 489, 497, 671
upstairs 112
uppermost 609 and note 6
upstairs 581 I
upshot 581 I
upside 772
upside 468, 469
used 297
used (made use of) 297
used to 297, 520
useful 651
useless 378
usual 519, 527
utensil 587

INDEX OF WORDS TRANSCRIBED
<table>
<thead>
<tr>
<th>Word</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>want(ed)</td>
<td>855, 736</td>
</tr>
<tr>
<td>war</td>
<td>439</td>
</tr>
<tr>
<td>warm</td>
<td>855</td>
</tr>
<tr>
<td>warm(ed)</td>
<td>7 note 7, 612</td>
</tr>
<tr>
<td>was(n't)</td>
<td>497, 686, 728</td>
</tr>
<tr>
<td>washingstand</td>
<td>637</td>
</tr>
<tr>
<td>wastepaperbasket</td>
<td>646</td>
</tr>
<tr>
<td>watch</td>
<td>4.43 and note 8</td>
</tr>
<tr>
<td>water</td>
<td>435</td>
</tr>
<tr>
<td>watercressbed</td>
<td>646</td>
</tr>
<tr>
<td>waterproof</td>
<td>637</td>
</tr>
<tr>
<td>waver</td>
<td>355</td>
</tr>
<tr>
<td>wax</td>
<td>430</td>
</tr>
<tr>
<td>way</td>
<td>671</td>
</tr>
<tr>
<td>we</td>
<td>355, 709</td>
</tr>
<tr>
<td>wear</td>
<td>355</td>
</tr>
<tr>
<td>weather</td>
<td>649</td>
</tr>
<tr>
<td>weatherbeaten</td>
<td>637</td>
</tr>
<tr>
<td>web</td>
<td>120</td>
</tr>
<tr>
<td>Wednesday</td>
<td>651</td>
</tr>
<tr>
<td>weir</td>
<td>381</td>
</tr>
<tr>
<td>well</td>
<td>362</td>
</tr>
<tr>
<td>well-bred</td>
<td>639</td>
</tr>
<tr>
<td>went</td>
<td>652</td>
</tr>
<tr>
<td>were</td>
<td>497, 699, 725</td>
</tr>
<tr>
<td>we're</td>
<td>381</td>
</tr>
<tr>
<td>western</td>
<td>651</td>
</tr>
<tr>
<td>wet</td>
<td>355</td>
</tr>
<tr>
<td>what</td>
<td>350, 430</td>
</tr>
<tr>
<td>wheel</td>
<td>353</td>
</tr>
<tr>
<td>when</td>
<td>497 note 3 p. 95, 504</td>
</tr>
<tr>
<td>whenever</td>
<td>636 note 2</td>
</tr>
<tr>
<td>where</td>
<td>575</td>
</tr>
<tr>
<td>whereabouts</td>
<td>644 note 2</td>
</tr>
<tr>
<td>whereas</td>
<td>298</td>
</tr>
<tr>
<td>wherein</td>
<td>636 note 2</td>
</tr>
<tr>
<td>whereupon</td>
<td>644</td>
</tr>
<tr>
<td>which</td>
<td>330</td>
</tr>
<tr>
<td>while</td>
<td>413</td>
</tr>
<tr>
<td>Whitechurch</td>
<td>769</td>
</tr>
<tr>
<td>Whitehall</td>
<td>622</td>
</tr>
<tr>
<td>who</td>
<td>331, 674</td>
</tr>
<tr>
<td>whole</td>
<td>331, 455</td>
</tr>
<tr>
<td>whom</td>
<td>460</td>
</tr>
<tr>
<td>why</td>
<td>107</td>
</tr>
<tr>
<td>wicked</td>
<td>122 note 1, 582</td>
</tr>
<tr>
<td>width</td>
<td>520</td>
</tr>
<tr>
<td>wise</td>
<td>355</td>
</tr>
<tr>
<td>will</td>
<td>347 note 3, 680, 701</td>
</tr>
<tr>
<td>win</td>
<td>352</td>
</tr>
<tr>
<td>wind</td>
<td>221, 544 (sb.)</td>
</tr>
<tr>
<td>wind</td>
<td>413 (vb.)</td>
</tr>
<tr>
<td>wine</td>
<td>510</td>
</tr>
<tr>
<td>wires</td>
<td>414</td>
</tr>
<tr>
<td>wise</td>
<td>355</td>
</tr>
<tr>
<td>wish</td>
<td>313</td>
</tr>
<tr>
<td>with</td>
<td>299</td>
</tr>
<tr>
<td>within</td>
<td>680</td>
</tr>
<tr>
<td>wives</td>
<td>281</td>
</tr>
<tr>
<td>wohl</td>
<td>(Ger.) 446, 152</td>
</tr>
<tr>
<td>wolf</td>
<td>469</td>
</tr>
</tbody>
</table>

Wolverhampton 468
woman 468, 503
women 373
won 444
wonder 444
wonderful 609
won't 385
woo 394
wood 140
wool 366
Worcester 468
word(s) 355, 480, 649
worked | 191, 355, 479 |
world | 479 |
worry | 444 |
worsted 468
worthy 292
would 497
wound (ab. and vb.) 355
wound (from vb. wind) 355
wrath 435
wreath(s) 284, 370
wrecked 415
wright | 413 |
write | 138 |
writing | 195 |
wrong | 263, 728 |
write | 565 |
yacht | 430 |
yard 383 |
ys 363 |
year | 479 |
yearn 393 |
yeast 357 |
yellowish | 609 |
yellowish-looking | 649 |
yes 359, 362, 543, 697 |
yet 363 |
yew 466 |
yoke 383 |
yolk 363 |
York Road 651 |
you 363, 674, 675 |
you are 700, 726 |
young 444 |
younger 155 note 2 |
youngest 156 note 2 |
your 474 note 2, 497 and |
note 6 p. 97 |
youth(s) 284, 460 |

Z
zeal 340
 zest 307
zinc 377
zom(s) 307, 458
Zoo 466
zwet (Ger.) 351
zwolf (Ger.) 445