

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)

CAMBRIDGE MUSICAL TEXTS AND MONOGRAPHS

General Editors: Howard Mayer Brown, Peter le Huray, John Stevens

THE MAKING OF THE VICTORIAN ORGAN

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)

CAMBRIDGE MUSICAL TEXTS AND MONOGRAPHS

General Editors: Howard Mayer Brown, Peter le Huray, John Stevens

The series Cambridge Musical Texts and Monographs has as its centres of interest the history of performance and the history of instruments. It includes annotated translations of important historical documents, authentic historical texts on music, and monographs on various aspects of historical performance.

Published

Ian Woodfield *The Early History of the Viol*

Rebecca Harris-Warrick (trans. and ed.) *Principles of the Harpsichord*
by Monsieur de Saint Lambert

Robin Stowell *Violin Technique and Performance Practice in the Late Eighteenth and Early Nineteenth Centuries*

Vincent J. Panetta (trans. and ed.) *Treatise on Harpsichord Tuning*
by Jean Denis

John Butt *Bach Interpretation*

Grant O'Brien *Ruckers. A Harpsichord and Virginal Building Tradition*

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)



Frontispiece, William Hill (1789–1870)

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)

THE MAKING OF THE VICTORIAN ORGAN

NICHOLAS THISTLETHWAITE

Canon Precentor, Guildford Cathedral



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
 978-0-521-34345-9 - The Making of the Victorian Organ
 Nicholas Thistlethwaite
 Frontmatter
[More information](#)

CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town,
 Singapore, São Paulo, Delhi, Tokyo, Mexico City

Cambridge University Press
 The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by
 Cambridge University Press, New York

www.cambridge.org

Information on this title: www.cambridge.org/9780521343459

© Cambridge University Press 1990

This publication is in copyright. Subject to statutory exception
 and to the provisions of relevant collective licensing agreements,
 no reproduction of any part may take place without the written
 permission of Cambridge University Press.

First published 1990

Reprinted 1993

First paperback edition 1999

A catalogue record for this publication is available from the British Library

Library of Congress cataloguing in publication data

Thistlethwaite, Nicholas.

The making of the Victorian organ / Nicholas Thistlethwaite.

p. cm. – (Cambridge musical texts and monographs)

Includes bibliographical references.

ISBN 0521 34345 3

1. Organs – England. 2. Organ – Construction. 3. Organ-builders –
 England. 4. Organ music – England – 19th century – History and
 criticism. 1. Title. 11. Series.

ML578.T5 1990

786.5'1942'09034–dc2O 89-71280 CIP

ISBN 978-0-521-34345-9 Hardback

ISBN 978-0-521-66364-9 Paperback

Cambridge University Press has no responsibility for the persistence or
 accuracy of URLs for external or third-party internet websites referred to in
 this publication, and does not guarantee that any content on such websites is,
 or will remain, accurate or appropriate. Information regarding prices, travel
 timetables, and other factual information given in this work is correct at
 the time of first printing but Cambridge University Press does not guarantee
 the accuracy of such information thereafter.

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)

*To Tessa and Peter,
without whose understanding
this could not have been written*

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)

Contents

<i>List of illustrations</i>	<i>page</i> xiii
<i>Preface</i>	xvii
<i>Explanatory notes</i>	xxi
<i>List of abbreviations</i>	xxiii

PART I

1 The English organ in 1820	3
Continuity and change	3
The Thaxted organ	6
Specification	11
Winding	23
Layout and action	27
Case and console	33
Pipework	40
2 Organs and organ-building, 1820–40	49
The organ-builders	49
Business and workshop	59
Churches and organs	65
Organ cases	73
3 The Insular Movement	86
Introduction	86
The background	88
Characteristic features	93
4 Three case studies	118
York Minster, 1802–53	118
Birmingham Town Hall, 1834–40	127
St George’s Hall, Liverpool, 1843–55	135

x	Contents	
5	The Bristol reformation	150
	Compasses	155
	Upperwork	156
	Pedal organ and pedals	156
	Swells	157
PART II		
6	Bach, Mendelssohn and the English organ, 1810–45	163
	Introduction	163
	Mendelssohn’s advocacy of Bach	164
	The publication of Bach’s organ works in England	168
	Public performances of Bach’s organ music, 1810–45	172
	Foreign travel	175
7	The German System	181
	Beginnings	181
	Gauntlett	185
	Hill	195
	Inspiration	210
8	The work of William Hill, 1839–55	215
	Introduction	215
	St Peter-upon-Cornhill, 1839–40	215
	St Mary-at-Hill, 1848	222
	Kidderminster Town Hall, 1855	227
	Layout and action	229
	Pipework	236
	Consoles and cases	246
9	The Transition	256
	The builders and the German System, 1840–60	256
	Gray & Davison, 1840–51	261
	The rise of the concert organ	270
	Smart and Davison: the 1850s	274
PART III		
10	The emergence of the Victorian organ, 1850–70	295
	1851 and the organ-builders	295

Contents	xi
Organs and organ-building, 1850–70	298
Ecclesiology	310
Casework	323
11 Music and mechanics	340
Composers, performers and the organ	340
Actions	349
Other innovations	361
Consoles	367
The introduction of equal temperament	371
12 German influences, 1855–70	374
Dissatisfaction with English builders	374
Preparing the ground	376
Edmund Schulze	383
The reception of German influences	388
13 Hill & Son, 1856–70	395
The firm	395
The Ulster Hall, Belfast, 1862	398
St John, Hyde Park Crescent, 1865	401
Stop lists	402
Pipework	407
14 Henry Willis	412
Introduction	412
Winchester Cathedral, 1854	417
St George, Preston, 1865	421
Union Chapel, Islington, 1877	426
Stop lists	432
Layout and action	435
Pipework	436
15 Epilogue	442
<i>Appendix 1 Specifications</i>	444
<i>Appendix 2 Documents</i>	507
<i>Notes</i>	514
<i>List of references</i>	537
<i>Index</i>	565

Cambridge University Press
978-0-521-34345-9 - The Making of the Victorian Organ
Nicholas Thistlethwaite
Frontmatter
[More information](#)

Illustrations

PLATES

	William Hill (Hill, Norman & Beard)	<i>frontispiece</i>
1	Thaxted Parish Church (Michael Perry)	<i>page 7</i>
2	Scone Palace. Toe pedals (Donald Wright)	21
3	Thaxted Parish Church. Pedal board (Michael Perry)	22
4	St Paul's Cathedral. Pedal board (1814)	22
5	'Interior Profile of an English Church Organ' from <i>Rees's Cyclopaedia</i>	24
6	Crick Parish Church (Andrew Freeman/British Organ Archive)	34
7	Ashridge	36
8	Thaxted Parish Church. Keyboards and stop jambs (Michael Perry)	37
9	Ashridge. Keyboards and stop jambs (B. B. Edmonds)	37
10	Thaxted Parish Church. Stop faces (Michael Perry)	38
11	Ashridge. Stop faces (B. B. Edmonds)	39
12	Pipe constructions from <i>Rees's Cyclopaedia</i>	41
13	Everingham, Catholic Chapel (John Mander)	74
14	Birmingham Town Hall. Print of c. 1850	76
15	Birmingham Town Hall	77
16	St George, Camberwell (Andrew Freeman/British Organ Archive)	78
17	St John, Waterloo Road (Andrew Freeman/British Organ Archive)	79
18	St James, Bermondsey (Andrew Freeman/British Organ Archive)	80
19	Lincoln Cathedral	81
20	York Minster (Photowork Ltd)	83
21	Bromyard Parish Church	84
22	Ombersley Parish Church (Andrew Freeman/British Organ Archive)	85
23	St James, Bermondsey. Console (Andrew Freeman/British Organ Archive)	103

xiv	Illustrations	
24	St George’s Hall, Liverpool	140
25	Edward Hodges	151
26	H. J. Gauntlett (J. D. Sharp)	186
27	Christ Church, Newgate Street (Andrew Freeman/British Organ Archive)	188
28	The Royal Panopticon of Science and Art, Leicester Square, Hill 1853 (B. B. Edmonds)	206
29	St Peter-upon-Cornhill, London (J. D. Sharp)	217
30	St Mary-at-Hill, London (Hill, Norman & Beard)	225
31	Kidderminster Town Hall, Hill 1855	226
32	Ashton-under-Lyne Parish Church (F. A. Hadwen)	249
33	Holy Trinity, Taunton (M. Culverwell)	250
34	Great George Street Chapel, Liverpool (Graham Spencer)	251
35	Eastbrook Hall, Bradford	252
36	St Peter-upon-Cornhill (J. D. Sharp)	254
37	St Paul, Wilton Place, Knightsbridge	263
38	Halifax Place Wesleyan Chapel, Nottingham (Andrew Freeman/British Organ Archive)	265
39	St Anne, Limehouse	268
40	St Anne, Limehouse. Console detail	269
41	Henry Smart	276
42	Leeds Town Hall	285
43	Leeds Town Hall, original drawings: console and stop action (Leeds City Libraries, Archives Department)	287
44	Leeds Town Hall, original drawings: section (Leeds City Libraries, Archives Department)	288
45	Leeds Town Hall, original drawings: section showing Solo Organ (Leeds City Libraries, Archives Department)	289
46	Upton Scudamore Parish Church	319
47	Designs for Gothic cases from F. H. Sutton’s <i>Church organs</i> (1872)	325
48	Proposals for the Gothicising of existing cases from F. H. Sutton’s <i>Church organs</i> (1872)	326
49	Design for an organ case by William Butterfield from <i>Instrumenta Ecclesiastica</i> (1856) (University Library, Cambridge)	329
50	St Michael’s College, Tenbury (H. Stubington)	331
51	Sherborne Abbey (Andrew Freeman/British Organ Archive)	333
52	Ely Cathedral (E. Adcock)	334
53	Alexandra Palace	336
54	St Martin-in-the-Fields, London (H. T. Lilley)	337
55	St Pancras Parish Church, London (G. Benham)	338
56	Union Chapel, Islington. The console (J. D. Sharp)	369

Illustrations	xv
57 The Royal Albert Hall, London. The console (Gilbert Benham/Laurence Elvin)	370
58 Edmund Schulze	384
59 The Exchange Rooms, Northampton	385
60 The Ulster Hall, Belfast (Lord Dunleath)	400
61 St John, Hyde Park Crescent, London	403
62 Henry Willis	413
63 St George, Preston (F. A. Hadwen)	423
64 St George, Preston. Console detail (F. A. Hadwen)	424

FIGURES

1 Thaxted Parish Church, bellows and winding	23
2 Colne Parish Church, waste pallet	27
3 Thaxted Parish Church, key and coupler actions	28
4 Thaxted Parish Church, pedal and stop actions	29
5 Crick Parish Church, key actions	30
6 Action for a Choir Organ ('Preston', 1842) from Gray & Davison Shop Books (ms 3: f. 47)	32
7 Wooden flute: 'English' block	43
8 Everingham, Catholic Chapel: key and pedal actions	94
9 William Hill's box pallet	128
10 Birmingham Town Hall: conjectural layout, c. 1840	134
11 Hill's wald-flute and oboe-flute	200
12 St Peter-upon-Cornhill: section	230
13 St Peter-upon-Cornhill: section	231
14 Kidderminster Town Hall: stop action and winding of Pedal	232
15 Kidderminster Town Hall: key and swell actions	233
16 Kidderminster Town Hall: detail of pedal action	234
17 Nicking of Hill pipes, 1840s	238
18 Holt's jointed pallet	349
19 Jardine's valve pallet	350
20 Hill's relief pallet	350
21 Barker's relief pallet	350
22 Willis's hollow valve	351
23 Willis's diaphragm-aided pallet	351
24 Hamilton's pneumatic lever, c. 1839	353
25 Barker's pneumatic lever, c. 1851	353
26 Barker's compensating bellows	355
27 St George, Preston: key and pedal actions	427
28 St George, Preston: stop action	428
29 Union Chapel, Islington: Great, Choir and Pedal actions	429
30 Union Chapel, Islington: Swell and Pedal actions	430

xvi Illustrations

TABLES

1	Thaxted, 1821: scales	10
2	English organs with pedal pipes: 1820	16
3	Crick, 1819: scales of flutes	42
4	Chaddesley Corbett, 1817: Great trumpet	45
5	Ashridge, 1818: Great diapason chorus	46
6	John Gray: analysis of work, 1822–37	63
7	Dates of the introduction of organs in Cambridge churches	67
8	Everingham, 1837: Great and Swell choruses	93
9	CC compasses in English organs, 1829–56	95
10	English organs with pedal pipes: 1821–56	98
11	Oldham Parish Church, 1830: Great chorus and Swell 16'	107
12	Manual doubles, 1820–40	107
13	Birmingham Town Hall, 1834: original scales	131
14	St George's Hall, Liverpool, 1855: original scales	148
15	The publication of Bach's organ music in England, and works arranged for the organ, 1799–1845	169
16	Public performances of Bach's compositions: 1810–45	176
17	Organs designed by Gauntlett, 1838–49	189
18	Synoptic specifications of Hill's organs, 1838–60	197
19	Registers introduced by Hill into his organs, 1840–55	199
20	Synoptic stop lists of Hill's totally enclosed organs, 1841–54	209
21	St Peter-upon-Cornhill, 1840: scales	240
22	St Mary-at-Hill, 1848: scales	241
23	Kidderminster Town Hall, 1855: scales	242
24	Hill reeds	246
25	Gray & Davison: long- and C-compass organs, 1841–52	266
26	Hill & Son, 1856–72: organs built	397
27	St John, Hyde Park Crescent: scales	409
28	Ulster Hall, Belfast, 1862: scales	410
29	Diameters of reed resonators: Ulster Hall, Belfast, and St John, Hyde Park Crescent	411
30	Winchester Cathedral. Scales of some registers from the 1854 organ, formerly in Willis's organ for the Great Exhibition (1851)	420
31	Winchester Cathedral. Details of reeds surviving from the 1854 organ, formerly in Willis's organ for the Great Exhibition (1851)	420
32	St George, Preston, 1865: scales of Great chorus	426
33	Reading Town Hall: scales of the 1864 pipework	438
34	Union Chapel, Islington, 1877: scales	441

Preface

Two publications provided the starting point for the present work. There was, on the one hand, C. W. Pearce's *Notes on English organs* (1912) which, together with the earlier *Notes on old London city churches, their organs, organists, and musical associations* (1909) represented a partial transcription of Henry Leffler's manuscript collection of organ specifications compiled between 1800 and 1819. The instruments he described possessed strong family likenesses. Few had more than twenty stops, the specifications were repetitious and the keyboard compasses invariably began at GG or FF. Pedals were seldom mentioned, pedal pipes almost never. Noting the dates of the various instruments (some of them apparently untouched since the late-seventeenth century) one was left with an impression of deep conservatism, even of stagnation. Subsequent research has modified this view, but the initial reaction was significant. Then, turning to a second volume, the prospect was transformed. Hopkins & Rimbault's *The organ, its history and construction* was published thirty-six years after Leffler's death (1855). Its appendix of specifications is a record of dramatic change. True, there are still many older instruments with long compasses and limited pedal arrangements, still plenty of sesquialteras and cornets, but the catalogue of English organs includes a large number of instruments utterly unlike any noted by Leffler earlier in the century. There is one organ with 100 stops and many with thirty-five or more. Most of the instruments by builders like Hill and Gray & Davison have C-compasses and ambitious Pedal divisions strongly reminiscent of other parts of northern Europe. The variety of stops has increased enormously: novel strings, flutes and reeds abound. Swell divisions have expanded and there are even a few references to the use of pneumatics to assist the organ's action. A transformation has taken place: one that is totally unexpected after the comfortable, slightly musty predictability of Leffler's record.

What follows is an attempt to understand the reasons for this transformation and to describe its character. Some may object that the title is misleading: the period under review (1820–70) is scarcely coterminous with

xviii Preface

the reign of Queen Victoria (1837–1901). It is, though, the author's belief that just as the adjective 'Victorian' is useful in other spheres to define a distinct school or type (Victorian architecture, the Victorian novel) it may appropriately be attached to a distinct approach to organ design which flourished in the nineteenth century and which had effectively come to maturity by about 1870 when most builders had shed the remaining vestiges of an eighteenth-century technology and tonal ethos, and adopted in their place methods and principles more in keeping with the new era. The intention was not to write a history of the Victorian organ but rather to study the origins of a style.

A further justification for this approach is the fact that the period 1820 to 1870 effectively embraces the working life of the man who probably made the greatest contribution to the transformation of the English organ during the nineteenth century, William Hill (1789–1870). His work will prove to be a thread running through the somewhat diffuse narrative that follows, and will, it is hoped, impart a coherence which it might otherwise be felt to lack.

It is more difficult to put up a defence against a second criticism which might be levelled at this book's title. The 'making' of the Victorian organ is bound to arouse expectations of a detailed technical study of the instrument's manufacture. The text includes much information about the construction of organs during the nineteenth century, as well as diagrams illustrating their layout and tables recording selective (highly selective) scalings, but it would not claim to be a technical study in the sense of, say, David Wickens's excellent monograph on Samuel Green (1987). There are various reasons for this. One is sheer lack of space. In a book endeavouring to give an overview of English organ-building during the most innovative fifty years in its history there simply is no room for definitive technical studies of individual builders or particular instruments. There is, though, another difficulty. Of the 180 British organs whose stop lists are recorded in the appendix to the third edition of Hopkins & Rimbault (1877) only five have survived to the present day without major alteration; another dozen or so remain in an altered but still recognisable state. The rate of destruction has been deplorable. Sometimes the losses were unavoidable: fire, for example, has taken its toll. The advent of new forms of action, at the end of the last century and the beginning of the present one, promoted the reconstruction of existing organs at a time when the Victorian organ was at its most unfashionable. But much of the destruction is more recent. The redundancy of many large Victorian churches has posed the often insuperable difficulty of finding homes for their large Victorian organs. Indifference led first to vandalism and then to the total destruction of Hill's organ of 1841 in the Great George Street Chapel, Liverpool, and although this highlighted the problem, there have been many losses since: Hill organs at St Stephen's, Lambeth (1861) and St Mary's, Hulme (1858), the 4-manual Willis in St Peter's, Blackburn (1872). All too often losses have been the result of ignorance or philistinism.

The re-ordering of churches has not infrequently led to applications to remove organs in order to make way for something useful like a coffee bar. And then, those who should be the organ's protectors are sometimes its worst enemies. Despite the best endeavours of (some) diocesan organ advisers, and the work of bodies such as the British Institute of Organ Studies, there are still organists who are not content to preserve an historic instrument as they find it and organ-builders who are only too ready to indulge their whims. A blight of balanced swell pedals, electro-pneumatic actions, detached consoles and neo-classical upperwork has made deep inroads into the surviving stock of nineteenth-century organs during the last forty years. As a consequence, our heritage is impoverished and the number of organs available for study is sadly depleted. If the present work only succeeds in increasing awareness of the value of these instruments, it will have served some purpose.

In acknowledging the many debts that I have incurred in the course of my research I must first express my thanks to all those organists, clergy and custodians of organs who have responded willingly to my requests for access to the instruments in their charge. In fifteen years I have encountered only one absolute refusal and have generally met with nothing but kindness and cooperation.

Another general acknowledgement is to the staff of the various libraries and record offices in which I have worked; I am grateful for their help, and for permission to quote from the manuscripts in their care. I would like though to record the particular assistance I have received from the British Organ Archive (Birmingham Central Library), Hereford Cathedral Library (Miss P. Morgan), the Royal College of Music, the Royal College of Organists (Mr Barry Lyndon) and the University Library, Cambridge.

This work began life as a doctoral dissertation. I was greatly encouraged at that time by Peter le Huray and Peter Williams (a constant source of inspiration in matters of organ history). My supervisor, George Guest, was tireless in writing to support my requests for access to particular instruments and I remain grateful for his interest and help.

Three special debts must now be acknowledged. The Reverend B. B. Edmonds possesses an apparently inexhaustible fund of knowledge concerning English organs and organ-builders. He has been generous beyond belief in making available the results of his own work on William Hill and in passing on information and hints which have proved of the greatest value. He was probably the first to appreciate the musical importance of the organs built during the Hill–Gauntlett collaboration, and if more of us have now come to recognise their qualities, and if, indeed, there is even a certain fashion for praising and imitating these instruments, it is largely due to him. It is Michael Gillingham whom I have to thank for first giving me access to the working records of an English organ-builder. Having rescued the Gray & Davison archive when the firm ceased to trade in about 1970, he allowed me

xx Preface

unrestricted access to these fascinating documents so redolent of the days when John Gray and Frederick Davison embarked on their partnership in the works on the north side of the New Road. He has been equally generous in sharing his profound knowledge of case design, and whilst the errors in the sections dealing with this topic remain my responsibility, there would have been many more had it not been for his guidance. My third special debt is to Stephen Bicknell who kindly agreed to wade through my manuscript, doing his best, as a practising organ-builder and historian of the organ, to alert me to solecisms and inaccuracies. I am deeply grateful for his assistance.

Many organ-builders have contributed directly to my work by allowing me access to their records, by being prepared to spend time answering what were to them elementary questions, and by helping me in my study of individual instruments. Among them, I would wish to mention: Ian Bell, John Budgen, Bill Drake, Frank Fowler, David Frostick, Dominic Gwynn, Peter Hopps, William Johnson, Roger Pulham, Martin Renshaw, John Mander, Noel Mander, Maurice Merrell, Bob Pennells, Eric Shepherd, John Shepherd, Dennis Thurlow, Mark Venning, John Sinclair Willis and Peter Wood.

I am similarly indebted to other writers and players who have been kind enough to help me in a variety of ways: James Berrow, John Bishop, John Bowles, Douglas Carrington, Cecil Clutton, Donald Davison, Laurence Elvin, Paul Hale, Bryan Hughes, Francis Jackson, Malcolm Jones, Christopher Kent, Betty Matthews, Colin Menzies, Timothy Morris, Austin Niland, John Norman, Nicholas Plumley, John Rowntree, Michael Sayer, Gerald Sumner, James Thomas, David Wickens and Donald Wright.

In the nature of things, I must have omitted the names of some people who ought to be included in the two preceding lists: I hope that they will accept my apologies.

My colleagues at Gonville and Caius College, Cambridge, have offered advice on various technical matters outside my immediate province, and I ought particularly to thank the staff of the Tutorial Office, and Michael Prichard, formerly Senior Tutor, for their help in elucidating the mysteries of word-processing and for forbearance when photocopying machines were mysteriously out of order.

I am grateful to Stuart White for advice on the execution of the technical drawings accompanying the text, and to all at Cambridge University Press who have been involved in the production of this book, especially Penny Souster.

My outstanding debt is left until last, and is in any case expressed in the dedication of this volume to two people who probably never again want to see or hear a Victorian organ.

Cambridge

Nicholas Thistlethwaite

Explanatory notes

I TECHNICAL DATA

All the diameters of pipe bodies were taken with callipers around the middle of the body; they may therefore reflect that ‘bellying out’ of the pipe practised by most pipe-makers. At best, they give a general indication of the scaling patterns. Few of the instruments investigated have been dismantled in recent years and detailed studies must await a future restoration when the pipework can be readily inspected. For the same reason little data relating to reeds can be given. The measurements recorded for wooden ranks are internal; the thickness of the timber sides of the pipe is also noted, but this is, again, indicative rather than definitive: most wooden pipes employ timber of slightly different thicknesses for the front and back panels and the sides.

2 FIGURES

The figures showing the internal layout of organs are drawn to scale. The details of the action and soundboards are simplified for the sake of clarity (e.g. pallet springs are not always shown) and sometimes enlarged (e.g. squares). Some details are conjectural (e.g. the design and arrangement of the pallets inside a chest). The drawings of organs are based on the author’s own researches; most of the drawings of action components are taken from other sources which are duly acknowledged.

3 REFERENCES

The author-date system is used in the text for secondary sources; these are then given in the List of References. Manuscript sources are numbered, and are identified in the List of References. In order to reduce congestion in the text, references are not given there for sources of the stop lists of individual instruments nor (usually) for details of their original design or subsequent reconstruction. All instruments mentioned in the text are listed in the third section of the List of References with accompanying notes on sources.

xxii Explanatory notes

4 SOURCES OF STOP LISTS

The specifications of many of the organs discussed in the earlier part of the text survive only in manuscript. The principal sources are the Leffler notebook (partly transcribed in: Pearce 1909, 1912), the ‘G. P. England’ notebook (a copy of which belongs to Noel Mander), *Organographia* (RCM MS 1161) and the Sperling notebooks (RCO). These sources, their relationship and reliability are discussed in: Thistlethwaite 1977. The establishing of accurate stop lists for later instruments poses fewer problems on account of the survival of organ-builders’ records (though these are by no means an unimpeachable source) and the proliferation of musical journals containing details of organs after the middle of the century.

5 COMPASSES

Much confusion is caused by a diversity of systems for describing compasses. Here, the following scheme is adopted:

$$CC\ (16') - C\ (8') - c\ (4') - c^1\ (2') - c^2\ (1') - c^3\ (1/2') - c^4\ (1/4')$$

These refer to the keys (or pedals) of the organ, not to the pitch of the registers.

Abbreviations

I ABBREVIATIONS IN TEXT

<i>ABG</i>	<i>Aris’s Birmingham Gazette</i>
<i>BIOSJ</i>	<i>BIOS Journal</i>
<i>BIOSR</i>	<i>BIOS Reporter</i>
<i>BMB</i>	Brown, J. D. and Stratton, S. S. <i>British musical biography</i> (1897)
<i>BWJ</i>	<i>Berrow’s Worcester Journal</i>
Buckingham	See List of references: Buckingham, A.
<i>CR</i>	<i>Christian Remembrancer</i>
<i>CMR</i>	<i>Choir and Musical Record</i>
<i>DNB</i>	<i>Dictionary of National Biography</i>
<i>Eccl</i>	<i>Ecclesiologist</i>
<i>EE</i>	<i>Edinburgh Encyclopaedia</i>
<i>EMG</i>	<i>English Musical Gazette</i>
E.S.	Enlarged series (journals)
<i>GJ</i>	<i>Gawthrop’s Journal</i>
GPE	<i>The ‘G. P. England’ Notebook</i>
HRI/2/3	Hopkins, E. J. and Rimbault, E. F. <i>The Organ, its history and construction</i> (1st edn/1855; 2nd edn/1870; 3rd edn/1877)
LCC	Liverpool Corporation: Law Courts Committee Minute Books (mss 45 and 46)
<i>LJA</i>	<i>The London Journal of Arts and Sciences</i>
<i>MG</i>	<i>Musical Gazette</i>
<i>MO</i>	<i>Musical Opinion</i>
<i>MP</i>	<i>Morning Post</i>
<i>MSt</i>	<i>Musical Standard</i>
<i>MT</i>	<i>Musical Times</i>
<i>MW</i>	<i>Musical World</i>
<i>NG</i>	<i>New Grove dictionary of music and musicians</i> (1979)
n.p.	no pagination

xxiv Abbreviations

N.S.	New series (journals)
<i>OOD</i>	<i>The organs and organists of Doncaster</i> (c. 1970)
<i>PA</i>	<i>Patents for inventions: Abridgement of specifications</i> (see List of References)
<i>PMA</i>	<i>Proceedings of the Musical Association</i>
<i>PMEM</i>	<i>The Practical Mechanic and Engineer's Magazine</i>
PC	Parish church
<i>QMMR</i>	<i>The Quarterly Musical Magazine and Review</i>
<i>RAM</i>	<i>The Repertory of Arts and Manufactures</i>
RCO	Royal College of Organists
<i>VCH</i>	<i>Victoria County History</i>
<i>YG</i>	<i>York Gazette</i>

2 ABBREVIATIONS IN SPECIFICATIONS AND TABLES

m	metal
n.a.	not available
n.o.	not original
wd	wood
8ve	octave
*	approximate measurement