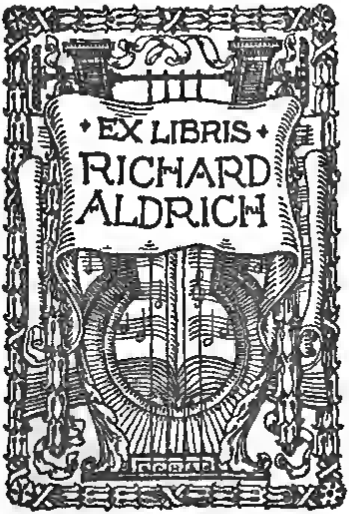
Proceedings of the Musical Association

Musical Association (Great Britain)



IN CONNECTION WITH THE INTERNATIONALE MUSIKGESELLSCHAFT.

PROCEEDINGS

OF THE

MUSICAL ASSOCIATION

FOR THE INVESTIGATION AND DISCUSSION OF SUBJECTS CONNECTED WITH THE ART AND SCIENCE OF MUSIC

FOUNDED MAY 29, 1874.

TWENTY-SEVENTH SESSION, 1900-1901.

LONDON:
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RULES AND REGULATIONS

Passed at Six Special General Meetings, held on February 7 and April 3, 1876, on January 6, 1879, on December 6, 1886, on June 2, 1890, and on January 7, 1895.

OBJECTS AND CONSTITUTION.

1. THIS Association is called the "MUSICAL ASSOCIATION" and is formed for the investigation and discussion of subjects connected with the Art, Science, and History of Music; and is intended to be similar in its organisation to existing Learned Societies.

It is not intended that the Association shall give concerts, or undertake any publications other than those of their own Proceedings, or the Papers read at their Meetings.

MEMBERS.

2. The Association shall consist of practical and theoretical musicians, as well as those whose researches have been directed to the science of acoustics, the history of the art, or other kindred subjects.

Any person desirous of being admitted into the Association must be proposed by two members. Foreigners resident abroad and distinguished in the Art, Science, or Literature of Music may be nominated by the Council for election as Honorary Members of the Association.

Elections will take place by ballot of the members present at any of the ordinary meetings, and one adverse vote in four shall exclude.

No newly elected member shall be entitled to attend the meetings until the annual subscription be paid.

SUBSCRIPTION.

3. The annual subscription to the Association is one guinea, which shall become due on the 1st of November in each year.

Any member *may*, upon or at any time after election, become a life member of the Association by payment of a composition of £10 10s. in lieu of future annual subscriptions, but in addition to any annual subscription previously paid or due from such member. Such sums shall from time to time be invested in legal security in the names of Trustees, to be appointed by the Council.

Any member intending to resign his membership shall signify his wish by notice in writing to the Secretary on or before the 31st of October, otherwise he shall be liable for his subscription for the ensuing year.

MEETINGS.

4. An ordinary meeting shall be held on the second Tuesday in every month, from November to June inclusive, at 5 P.M., when, after the despatch of ordinary business, Papers will be read and discussed, the reading to commence not before 5.20 P.M.

5. An annual general meeting of members only shall be held at the end of the financial year, to receive and deliberate on the Report of the Council, and to elect the Council and officers for the ensuing year.

6. Special general meetings may be summoned whenever the Council may consider it necessary, and they shall be at all times bound to do so on receiving a requisition in writing from five members, specifying the nature of the business to be transacted. At least one week's notice of such special meeting shall be given by circular to every member, and ten members present at any general meeting shall constitute a quorum.

7. Every member shall have the privilege of introducing one visitor at the ordinary meetings, on writing the name in a book provided for that purpose, or sending a written order.

COMMUNICATIONS.

8. Papers proposed to be read at the meetings may treat of any subject connected with the Art, Science, or History of Music, Acoustics, and other kindred subjects.

Papers will be received from or through any member of the Association.

Experiments and performances may be introduced, when limited to the illustration of the Paper read.

9. All communications read will become thenceforth the property of the Association (unless there shall have been some previous arrangements to the contrary), and the Council may publish the same in any way and at any time they may think proper.

REPORTS.

10. A Report of the Proceedings of the Association, including the Papers read or abstracts of the same, and abstracts of the Discussions, shall be printed and distributed to the members as soon as possible after the end of each session.

This Report will be arranged and edited by the Secretary, under the direction of the Council.

COUNCIL AND OFFICERS.

11. The management of the affairs of the Association shall be vested in a Council, to be elected by ballot at the general meeting of the members.

The Council shall consist of a President, Vice-Presidents, and ten ordinary members of the Association.

The Secretary of the Association shall be *ex officio* an ordinary member of Council.

The President, Vice-Presidents, Auditors, and five ordinary members of the Council shall retire every year, but shall be eligible for re-election.

12. At the annual general meeting, the Council shall present a balloting list, showing the names of the persons

whom they propose for the offices of President, Vice-Presidents, and ordinary members of Council for the ensuing year. A copy of this list shall be given to each member present.

In voting, each member may erase any name or names from the balloting list, and may substitute the name or names of any other person or persons whom he considers eligible for each respective office; but the number of names on the list, after such erasure or substitution, must not exceed the number to be elected to the respective offices as above enumerated. Those lists which do not accord with these directions shall be rejected.

The Chairman of the meeting shall cause the balloting papers to be collected, and after they have been examined by himself and two scrutineers, to be appointed by the members, he shall report to the meeting the result of such examination, and shall then destroy the balloting papers. Auditors shall be appointed at the annual general meeting by the members, and the statement of accounts shall be sent by the Treasurer to the Auditors, and be remitted by them to the Secretary in time to enable the Council to judge of the prospects of the Association, and to prepare their report in accordance therewith.

13. The Council and officers shall meet as often as the business of the Association may require, and at every meeting three members of Council shall constitute a quorum.

ENACTMENT OR ALTERATION OF RULES AND REGULATIONS.

14. No rules and regulations can be enacted, altered, or rescinded, except at a special meeting of members summoned for the express purpose, the summons stating distinctly and fully the matter to be brought under consideration.

MUSICAL ASSOCIATION.

(IN CONNECTION WITH THE INTERNATIONALE MUSIKGESELLSCHAFT.)

FOR THE INVESTIGATION AND DISCUSSION OF SUBJECTS CONNECTED WITH THE ART AND SCIENCE OF MUSIC.

FOUNDED MAY 29, 1874

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*Wyndham, Hon. Hugh A.

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Those who are also Members of the Internationale Musikgesellschaft are indicated by an * to their names.

MUSICAL ASSOCIATION.

TWENTY-SIXTH SESSION, 1899-1900

REPORT.

THE ANNUAL GENERAL MEETING WAS HELD ON TUESDAY, 13TH NOVEMBER, 1900, AT THE ROYAL COLLEGE OF ORGANISTS:

Sir JOHN STAINER in the Chair.

The following REPORT *of the Council was read by the Secretary*:—

THE Council beg leave to present to the Annual General Meeting, in accordance with Rule 5, their Report of the 26th Session, 1899-1900.

In the course of the Session, papers have been read by Mr. Joseph Goddard, Dr. W. G. McNaught, Mrs. Henry Newmarch, Mr. John S. Bumpus, Professor Niecks, Mr. J. W. Warman, Dr. W. H. Cummings, and Mr. J. F. R Stainer; and the Council desire to record their high appreciation of the generosity with which these able writers have placed the results of their thought and research at the service of the Association. The papers with the discussions thereon have been printed and distributed as usual to the members.

A connection has been formed between the Musical Association and the Internationale Musikgesellschaft (International Musical Society), a Society recently inaugurated in Berlin for the formation in various countries of local Associations having similar objects to those of the Musical Association, and held in mutual communication by monthly and quarterly publications common to the whole in several languages. Negotiations between the Council of the Association and the English Committee of the Internationale Musikgesellschaft resulted in the Association agreeing to act under certain conditions as the London Branch of this organization, the arrangement being finally ratified at a Special General Meeting held on 13th February, 1900. The Council wish to point out to members and their friends the greatly increased facility thus afforded for gathering information and the results of research on musical subjects from all parts of the world, and they anticipate a steady development of the means employed for attaining this end. They are pleased to announce that no fewer than seventy-four ladies and gentlemen have already taken advantage of the special terms applicable to those who belong to both Societies, while others are about to join.

The membership has increased during the year and the strength of the Association has been well maintained.

The Council have, with great regret, to record the loss by death of Sir George Grove, C.B., Mr. George Cockle, M.A., Mus.B. Oxon., Mr. Battison Haynes, and Dr James Taylor, New College, Oxford.

The Finances are in a very satisfactory condition, for notwithstanding that heavy exceptional expenses have been incurred, the balance in hand is still over £50, while, in addition, £30 has been expended in raising the invested funds to the sum of £500 Consols.

In accordance with the Rules, the President and Vice-Presidents retire from office. Five ordinary Members of Council, Mr. W. W. Cobbett, Mr. Myles B. Foster, Dr. W. G. McNaught, Dr. Charles Vincent, and Mr. F. Cunningham Woods also retire by rotation. All the above officers are re-eligible, but Dr. Vincent does not offer himself for re-election. The Council submit the following nominations:—The President and Vice-Presidents as before, and the retiring Ordinary Members of Council as before, but with Mr. J. A. Fuller Maitland replacing Dr. Vincent. Members are however reminded of their right to make, in accordance with Rule 12, any other nomination they choose. The rule is as follows:—

"In voting, each member may erase any name or names from the balloting list and may substitute the name or names of any other person or persons whom he considers eligible for each respective office; but the number of names on the list after such erasure or substitution must not exceed the number to be elected to the respective offices as above enumerated. Those lists which do not accord with these directions shall be rejected."

On the motion of Mr. Blaikley, seconded by Mr. W. H. Bonner, the Report was adopted.

The Hon. Treasurer's Statement of Accounts was laid before the Meeting, and passed unanimously, on the motion of Mr. C. Welch, seconded by Mr. Arthur Fox.

Dr. Maclean moved, Mr. Bonner seconded, and it was resolved: "That the General Meeting approves of the action of the Council in having, as a special case, on the 26th June, 1900, admitted Mr. W. H. Hadow to be a joint life member of the two connected Societies."

The retiring Officers were re-elected, with the exception of Dr. Vincent, who did not offer himself for re-election. Mr. J. A. Fuller Maitland was elected an Ordinary Member of Council.

The Meeting closed with votes of thanks to the Officers and to the Chairman.

NOTICE.

Papers or short communications for the Monthly Meetings are received from or through Members; these and suggestions as to suitable subjects and capable writers will be gladly considered by the Council.

Members are desired to make the Association and its objects as widely known as possible. The Secretary will forward Prospectuses and Nomination Forms on application.

Members preferring to do so can pay their subscriptions through their Bankers. A form for this purpose may be obtained of the Secretary.

Any change of address should be promptly notified to the Secretary, as occasional complaints of the non-receipt of books and notices are usually traceable to either old or insufficient addresses.

SPECIAL NOTICE.

At a Special General Meeting held on February 13, 1900, the following Resolution was passed: "That the Council be and is hereby authorised to add to the title of the Musical Association on its publications and prospectuses till further notice the words 'In connection with the Internationale Musikgesellschaft.'"

The English Committee of the latter Society (International Musical Society) consists of: Sir Hubert Parry (President), Mr. Otto Goldschmidt (Vice-President), Sir Frederick Bridge, Dr. Cummings, Mr. W. H. Hadow, Sir Alexander Mackenzie, Dr. Maclean, Mr. Fuller Maitland, Dr. McNaught, Professor Niecks, Professor Prout, Mr. Barclay Squire, Professor Stanford, Mr. Sedley Taylor. The Society publishes a monthly Journal and quarterly Magazine, employing four languages, with the object of promoting interchange between different countries of information and opinions concerning the history, art, and science of music.

Owing to the long-standing position of the Musical Association, members thereof are admitted as members of the International Musical Society on very special terms, which can be ascertained from the Secretary of the Musical Association.

THE MUSICAL ASSOCIATION.

Hon. Treasurer's Statement of Income and Expenditure from October 20, 1899. to October 30. 1900.

Dr.	£	s.	d.	£	s.	d.
To Balance in Hand	...		...	53	0	5
,, Subscriptions, Life (4)	42	0	0			
,, ,, 1897 98 (3)	3	3	0			
,, ,, 1898 99 (23)	24	3	0			
,, ,, 1899-00 (126)	132	6	0			
,, ,, 1900-01 in advance (19)	19	19	0			
				221	11	0
,, Dividends	...		...	11	19	1
,, Sale of "Proceedings," per Secretary	3	5	5			
,, ,, ,, per Novello & Co	2	17	10			
				5	3	4
,, Subscriptions for I M G —						
Annual (66) ...	33	0	0			
Life (1)	5	5	0			
				38	5	0
,, Tickets for the Dinner (55 at 5/-) ...	..			13	15	0
				£343	13	10

A H D. PRENDERGAST.
Hon. Treasurer.

Cr.	£	s.	d.	£	s.	d.
By Printing—Novello & Co	101	6	9			
,, C. F. Thorn	14	6	0			
				115	12	9
,, Expenses of Session—						
R. C. O. (Hall)	7	7	0			
Refreshments	7	9	6			
Reporting	8	5	0			
				23	1	6
,, Advertising	...		...	12	13	11
,, Postages & Petty Cash (Secretary)	17	1	6			
,, ,, (Novello & Co.)	2	19	9			
				20	4	3
,, Treasurers of I M.G.	...		...	10	7	6
,, Purchase of Stock	..		...	30	0	0
,, Secretary's Salary	30	0	0			
,, Honorarium for Index	5	5	0			
				35	5	0
,, Holborn Restaurant	...		..	13	10	0
,, Small accounts	..		...	1	12	9
,, Balance in Hand	..		...	81	3	2
				£343	13	10

Examined and found correct, October 30, 1900

D. J. BLAIKLEY. }
C. BOWDLER, } *Hon Auditors*

NOVEMBER 13, 1900

PROFESSOR SIR J. FREDERICK BRIDGE, MUS. DOC.,

IN THE CHAIR.

ON THE MUSICAL INTRODUCTIONS FOUND IN CERTAIN METRICAL PSALTERS.

BY SIR JOHN STAINER.

THESE Introductions, Directions, or Principles, as they were variously styled, contain what we should now term the Rudiments of Music, or at all events, as much of them as is needed for those who wish to sing a simple melody. They have an interest peculiarly their own, as illustrating the efforts made by the pioneers of congregational psalmody to secure an intelligent, as well as a general participation in its rendering.

Psalm singing was to our ancestors of the early reformed Church, something to be approached with reverence; not to be dealt with lightly, but worthy of serious study. This idea of providing musical instructions was handed on, and imitated, for certainly 250 years, and though latterly it became a mere fashion to affix something of that sort to every Psalm-book printed, the contents are none the less interesting, as by viewing them consecutively and continuously, we get a clear insight into the various methods of practical music in vogue during this long period. We can trace efforts to record pitch, key, time; we discover the source and growth of several systems of solfeggio; and incidentally, we can read, though it has been quite unconsciously recorded, the story of the marvellous hold which the "ancient" has on the human mind even when it has become obsolete and useless. Men cannot, dare not throw it aside, it is consecrated by age, and all innovations are profane.

Let us begin by looking into our English Psalters. You are all aware that the famed Thomas Sternhold was Groom of the Robes to Henry VIII., and that he first began to versify the Psalms for his own satisfaction and private use, but his efforts came under the notice of the young Prince Edward, afterwards Edward VI., who encouraged him to persevere in his task for the public good. For a full history of this man and his co-workers you have only to refer to the admirable articles in Julian's "Dictionary of Hymnology." It will suffice if I remind you that our national metrical Psalms were issued at first in instalments. Sternhold published nine-

teen of them dedicated to Edward VI.; these were increased to thirty-seven after his death and published in 1549, forty-four were issued in 1551, consisting of the thirty-seven by Sternhold and seven by Hopkins; in 1556 the collection numbered fifty one, in 1559 John Day paid a fine for having printed "serten copies without license" of a "quartron of psalmes with notes." There is no surviving copy of this book. In 1560 an edition was issued with sixty-five metrical psalms with their notes. One copy of this book alone exists; it is in the library of Christ Church, Oxford.

We now come to a period of great interest musically. Two copies of the Sternhold Psalter exist, dated 1561; one belonging to Mr. Octavius Morgan, the other, a complete copy in MS., in the library of Christ Church, Oxford. No others are known. Both these copies contain a "short introduction to the science of music," though the number of Psalms they contain is different, the printed book has only eighty-three Psalms, whereas the MS. contains the whole 150, though not in consecutive order.* At last was *published* for the first time, in 1562, the "Whole Book of Psalms,' &c.," with apt notes to sing them withal," the "apt notes" being gathered from the many sources thrown open by the close intercourse between Swiss, French, Dutch, German, and English Protestants. But here it is important to notice that however "apt" the notes were to the metrical words, it is certain that our congregations of worshippers were not altogether "apt' to the rendering of the music—a fact which has hitherto, as far as I know, not been sufficiently recognised. Hence, two remedies were tried—one, to give such instructions in the rudiments of music as would enable those who chose to take the trouble, to learn how to sol-fa and sing at sight; the other, to boldly print in the staff the sol-fa name of each note of the music by the side of, or under the note itself.

The "Introduction to the skill of music" just mentioned as being in the two copies of the metrical psalters of 1561, is to be found in the only surviving complete psalter of 1562, and was issued in the 1564 edition. With very slight alterations it appeared in the editions of 1577, 1581 (8vo).† As this "Introduction" shows definitely how music was taught in the middle of the sixteenth century, I think it is of sufficient importance to be printed out in full, as given in 1564.

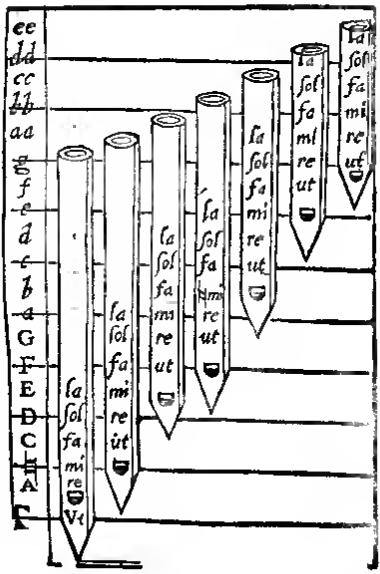
* About ninety five are given in the body of the book, the gaps being filled up by an "Addition,' which also contains a few psalms in duplicate versified by different hands. I am much indebted to Professor York Powell, Librarian of Christ Church, for allowing me to examine these two unique and priceless treasures.

† Hawkins asserts that the "Short Introduction" did not re-appear after 1577. It certainly is given in the 8vo edition of 1581, though not in the 4to edition of the same date.

"A SHORT INTRODUCTION INTO THE SCIENCE OF MUSICKE, MADE FOR SUCH AS ARE DESIROUS TO HAUE THE KNOWLEGE THEREOF, FOR THE SINGING OF THESE PSALMES.

"For that the rude & ignorant in song, may with more delite, desire, & good wil, be moued and drawne to the godlye excercise of singing of Psalmes, aswel in common places of prayer where al together with one voyce render thankes & praises to God, as priuately by themselues or at home in their houses I haue set here in the beginning of this booke of psalmes, an easy & most plaine way and rule, of the order of the Notes and kayes of singing, which commonly is called the Scale of Musike or the *Gamma vt.* Whereby (any diligence geuen thereunto) euery man may in a few dayes, yea in a few houres, easelye with out all payn, and that also without ayde or helpe of anye other teacher, attayne to a sufficiente knowledge to synge anye Psalme contayned in this booke, or any such other plain & easy songs as these are.

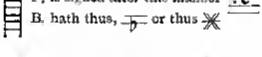
Behold this Table.



"An Introduction to learn to sing.

"In this Table of *Gamma vt*, is contained al, what is necessary to the knowledge of singing. Wherefore it must be diligentlye waid, & must also be perfectly committed to memory, so that ye can redily & distinctly say it without boke, both forward and backward, that is, vpwarde and downeward. And this is the greatest payne that ye neede to take in this traue.

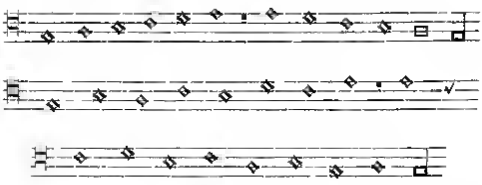
"Ye must also note that the letters ascending on the left hand of the Table are called Kayes or Cleues, of which, the first is a Grake letter, signifying, *g*, and is called *Gamma* (of whom ye whole Table or scale is called ye *Gamma vt*). All thother are lattin letters vii in nombre *a*, *b*, *c*, *d*, *e*, *f*, *g*, then repeting ye same again, beginning at *a*, and the thirde time repetinge the same til ye come to *ee*, *la*. Whiche is the last. But all these Kaies are not signed or set in these Psalms: but only ii. or iii. most commonly *C.* or *F.* or *B. C.* hath this forme or signe.



The kayes of this Scale or table ar deuided and set forth by thre diuers orders of letters. From *Gamma*, *vt*, to *G*, *sol*, *re*, *vt*, are signed with Capitall letters & are called graue, base or capitall Kayes, from *G*, *sol*, *re*, *vt*, to *g*, *sol*, *re*, *vt*, they are written with small letters & are called meane or smal kayes: and from *g*, *sol*, *re*, *vt*, to *ee*, *la*, they are written wyth double letters, & are called double kaies, and treble kayes. When it chaunceth ii. kaies to be of one letter, as *G*, *sol*, *re*, *vt*, & *g*, *sol*, *re*, *vt*, *A*, *la*, *mi*, *re*, & *a*, *la*, *mi*, *re*, *F*, *fa*, *vt*, and *f*, *fa*, *vt*, *E*, *la*, *mi*, and *e*, *la*, *mi*, ye may (to put difference and distinction betwene them) cal the one capital, *G*, or *G*, *sol*, *re*, *vt*, the lower and thother small *g*, or *g*, *sol*, *re*, *vt*, the higher and so of others. They are called kayes bicause they open, as it were the dore, and make away into song, for by the sight & place of ye kay ye shal know easely the whole song, the nature of euery note in what kay or place it standeth, & howe ye shal name it. Ye see also in the Table, that some of the kayes be set in lines or rules, and other are set in spaces betwene ye lines as *gamma vt*, is set in rule, *a*, *re*, in space: *b*, *mi*, in rule, *c*, *fa*, *vt*, in space, *d*, *sol*, *re*, in rule, & so ascending to thende: so also in the songes of your boke, ye see rules, & spaces, so that euery rule & space in youre boke answereth to some one rule or space of youre table or scale: and taketh ye name of the same, which ye may easly find out, either by ascending

or descending from the kay, set & marked in your song Moreouer it is to be noted, that ther are six voices or notes signified and expressed by these six syliables: *vt, re, mi, fa, sol, la* by which thorow repetition of them, maye be song al songs of what compasse so euer they be, which six notes you must learne to tune aptly of some one that can alredy singe, or by some instrument of Musyke, as the virginals, or some other such like.

"Which thing wel learned, ye shal neede no other teaching of any. And for a playner learninge thereof, I haue set before your eyes, those vi. notes ascending, & descending & again with a little varietye from theyr natural order to thende ye may attayne to the iust tunes of them, so howe euer they be placed. For these two examples wel had and tuned a right, all other songes & Psalmes, with little vse and a smal labour, wil sone be attayned vnto.



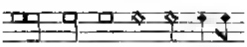
"First ye must diligently search oute in what kay euery note of youre song standeth: Which ye may easely do, in beholding your signed kay (commonly called the cleaue) which is set in the beginning of euery song, and that line, or space wherein that signed kay is set, beareth the name of the same kay: and al notes standing in the line or space are sayd to stand in that kay and so ascending or descending from that kay, ye shal strayght way se wherin, or in what kay euery Note of your song standeth. As in this present example, if ye wil know wherein your firste Note standeth, consider your kay, signed & marked with this letter, *c.* in the second rule and bicause it standeth in rule, ye find by your Table, that it is *c, sol, fa, vt* (For thother two, *c, c,* which are *C, fa, vt,* and *cc, sol, fa,* stande in space) wherfore that second line throughout is called *c, sol, fa, vt,* and al the Notes placed in that line, are counted to stand in *c, sol, fa, vt.* Then descend from that kaye to the next space, which (as your table telleth you) is *b, fa,* ✱ *mi.* From thence to the next rule, which is *a, la, mi, re.* And from thence to the next

space, wherein your fyrst note standeth, whiche is *G, sol, re, vt*: so finde ye by descendinge in order beginning at your signed kaye, after this sorte: *c, sol, fa, vt, b, fa,* ✱, *mi, a, la, mi, re*: *G, sol, re, vt* that your first note standeth in *G, sol, re, vt*, wherfore ye maye sing it by any of these 3. notes *sol, re,* or *vt*: but bicause this note *vt* in this place is most aptest to ascend withall, ye shal call it, *vt*, by the same trial ye shall find that your second Note standeth in *a, la, mi, re*, ye shall expresse it in singing by this voyce *re* rather than by *la* or *mi*, bicause *re*, is in order next aboue *vt*, so shal ye find the third note to stand in *b, fa,* ✱ *mi*, which ye shal expresse by *mi*. The fourth standeth in ye signed kay or cleaue wherfore it standeth in *c, sol, fa, vt*, which ye must expres by *fa*. The fift in *d, la, sol, re*, & is to be expressed by *sol*, ye sixte & highest note, ye shal by escending from your kay find to stand in, *e, la, mi*, & is to be expressed in voice by *la*, so haue you ye whole compasse of your song: & as in order of notes & sound of voyce, ye ascended, so contrariwise, ye must descend til ye com to the last note of your songe. Here note that when *b, fa,* ✱, *mi*, is formed & signed in this maner, with this letter *b*, which is called *b*, fiat, it must be expressed with this voice or note *fa*, but if it be formed & signed with this forme ✱, whiche is called *b*, sharpe, or it haue no sign at all, then must ye expresse it in singing with this voice or note *mi*. Likewise ye may practise, placing your firste note, *vt* in any other kaye, wherein ye finde *vt*, which are vii. *Gam, vt, C, fa, vt, F, fa, vt*, graue *G sol re, vt* graue, *c, sol, fa, vt, f, fa, vt*, sharp, *g, sol, re, vt*, sharp, ascending vp to *la*, & descending as in your former example. These vii. seuerall ascensions & descensions, vpon diuers grounds or cleues ar commonly called of writers vii. deductions which ye may plainly and distinctly behold in your table or scale.

"One example more haue I set, wherein ye sing *fa*, in *b, fa,* ✱, *mi*, whose deduction beginneth in *vt* placed in *F, fa, vt*, graue or capitall as you see:—

Ye haue also in youre songes diuers formes & figures of notes. Of which al, it behoueth you to knowe both the name and value.

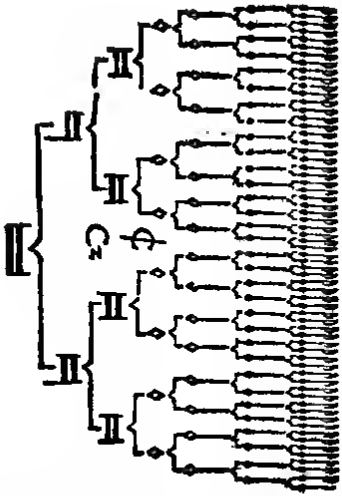
DIUERS FORMES OF NOTES.



The first of these is a Large the second a Long. The third a briefe: The fourthe a Sembrief the fift a Minim. The sixt a Crochet. The seuenth and last a Quauer.

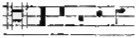
"The first is worth in value two of the second, that is, two Longes and one Long is worth two Breues and one Breue, is two Sembreues: and one Semebrefe, two Minims, and hath twise the time in pronouncing & in singing that the Minime hath, one Minime is worth two Crochets and one crochet is two quauers, as appereth in the Table following.

TO THE READER.



If there chaunce any pricke to beset by anye of these notes, the pricke is worthe in value the note nexte folowing it. As a

prick set by a Sembreue, as thus  is worthe thys note,  whiche is a Minime, and a prick by a minim as here  is worthe a  There are also oftentimes in singing, Pauses or rests, set in songs, sometime for ease of the singer, and comely stay of the songs, sometime where diuers parts ar, for swetenes of the Harmony & apt repeticions & reports. which are signified by little strikes or lines, or half lines, betwene rules as thus, The first, drawn from the fyrst line to the thirde



is called a long rest, and signifyeth that ye must pause whil that a long is song, which is worth iii plain songe Notes, or iii. sembreues. The second whiche is from one line to an other is called a Breue rest, & requireth ye pausing of a Breue or of ii. Sembreues. The thirde, whiche is from a line to the halfe space vnderneath is called a Semebreue rest, & requireth the pause or space while a Semebreue is a singinge. The fourthe which is ascending from the lyne, to the half space aboue, is called a Minim rest, and is but the drawing of a breath, while a Minime may be song. The fift and last, which is like to ye Minim rest, but croked at ye top, requireth ye pause of a crochet.

"To set out a ful and absolute knowlege of the nature of the scale, the differences betwene notes and halfe notes, and halfe notes betwene themselues, of interuals, proportions, and which notes concord & agre together, and which disagre. What modes there ar, and how many. What is perfection, what imperfection, how notes ought to be bound together, & what their value is so bound, tayled vpward or downward: pertayneth to a iuste introduction to thart of Musicke. These things before taught, seme at this time for the pore vnlearned and rude, sufficiente and inough to the attayning of such knowledge in singing as shalbe requisite to the singing of Psalmes, conteyned in this boke, for which cause only they are set out."

Several points of interest at once present themselves, if we bear in mind that this little treatise was written before 1561, thirty six years before Thos. Morley's "Plaine and Easie Introdvction." The expression *signed keys*, or *signing a key*, is a fore-runner of our useful word *signature*. But our author still uses the words *clef*, *key*, and *note* rather indis-

criminately. For example, he calls all the *letters* of the hexachords *keys*, he speaks of the C and F *clefs* as keys; he says a *signed key* is *commonly called the cleane*, lastly, he describes two *keys* an octave apart as having the same letters, meaning of course two *notes*. The word *lines* of a stave had not yet displaced the older name *rules*, and they were reckoned from the top downwards, the first rule being our fifth line, and so on. The word *note* is just beginning to supersede the older *voice*; our unknown author speaks of the "voyce or note *fa*," but he also speaks elsewhere of the "order of notes and sound of voyce, showing that the word note was soon to be confined to the actual sign, releasing the word voice for its normal meanings of the sound of a voice or, a voice-part, or any part (as we now say, *a tre voci*, &c.). We can trace the germ of our octave system in the fact that the reader is told to reckon the Grave, Mean, and Treble keys, by the letters which represent a note and its octave, from Grave G (or Greek Gamma) to G, from G to g, from g to ee (or gg had the compass been extended two notes higher). We find no allusion to hars, none are used in the Musica Transalpina (1588), but they shew themselves in Morley (1597, pp. 34-5) and in his Part II. they are introduced into the specimens of Descant without any remark. The word *prick* which commonly meant a note (*prick-song* signifying written or printed music), begins here to be used for a *point*, or, as we now know it, a *dot*. We see here also the rudimentary forms of our modern rests. The semibreve rest which in the example hangs "from one line to the half space underneath" in our days retains its position *under* the line, though its shape does not require that it should fill "half the space underneath."

The crotchet rest which is "croked at ye top" accounts for the fact that our modern crotchet rest is surmounted by a curve towards the right, and we may add, that when the quaver was introduced and a corresponding rest was required, it was obviously necessary to turn its crook to the left, because the pre-existing crotchet had already assumed a crook to the right. Our author, who must have been a very good musician, cannot refrain from insinuating, in his cynical closing words, how much more could and ought to be learnt, and it must have been a severe blow to any would-be psalm-singer who had mastered the whole of this Introduction to be told by the writer that he considered what had gone before as being, for the present at least, sufficient to enable the "poor unlearned and rude" to sing the Psalm-tunes contained in the book. But trifling and contemptible as our learned author considers the amount of labour required by his Introduction, we who read it nearly 350 years later

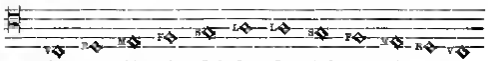
cannot be surprised that the "poor, unlearned, and rude" demanded some much simpler method of arriving at the art of singing the mere melodies of Psalm-tunes.

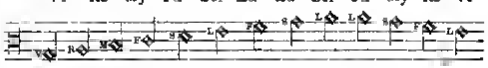
Bourgeois had already grappled with this difficulty as early as 1550, by placing solfa syllables by the side of each note, thus rendering all study of the hexachordal system unnecessary. With this example before him it is hard to believe that fourteen years later Daye, in our complete 1564 psalter, did not adopt this system, instead of driving his readers through the "Introduction to the science" which you have just read. But, the serious task it imposed on the rude and unlearned was clearly more than they cared to undertake, and there must have been a general outcry against it.

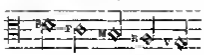
Consequently, six years later, namely, in 1570, we find this learned Introduction turned out to make room for a short Preface of one page, merely pointing out how very little trouble is required now that the first letter of the solfa name stands by the side of every note in the psalter. I now give the Preface.

"To the Reader.

"Thou shalt vnderstand (gentle Reader) that I haue (for the helpe of those that are desirous to learne to sing) caused a new print of Note to be made with letters to be ioyned to euerie Note. Whereby thou maiest know, how to call euerie note by his right name, so that with a very little diligence (as thou art taught in the introduction printed heeretofore in the Psalmes) thou mayest the more easilie by the vewing of these letters, come to the knowledge of perfect Solefayeng'. Whereby thou mayest sing the psalmes the more speedilie and easilie: The letters be these V for Vt, R for Re, M for My, F for Fa, S for Sol, L for La. Thus where you see any letter ioyned by the note, you may easilie call him by his right name, as by these two examples you may the better perceiue.







Thus I commit thee vnto him that liueth for euer, who grant that we sing with our harts vnto the glorie of his holy name. Amen."

The simplicity of this system secured its success, for, the editions having these letter-notes appeared (after 1570, 8vo.); in 1573 (?), 8vo; 1575, 4to; 1576, 4to.

In 1577 the learned Introduction appears again; but in 1581, a 4to edition contained the Preface, and letter-notes, while an 8vo edition reproduced the Introduction

This was followed by letter-note editions in 1585, 4to; 1594, 4to; 1598, 4to; 1605, 4to, the notes being lettered up to Psalm 69; and finally in 1608, 4to.*

After this time both "Prefaces and letter-notes," and "Introductions to the science" disappeared from "Sternhold and Hopkins." The book itself however, with or without its psalm tune melodies, lived on, overlapping its "allowed," not "authorised" successor, the New Version by Tate and Brady, until at last it died a hard death in 1868, having passed through about 600 editions

I now wish to take you back to the musical instructions in two early French Psalters. The first is "Pseaumes de David, mis en rhythme Française par Clement Marot et Théodore Bèsze, avec nouvelle et facile méthode pour chanter chacun couplet des Pseaumes, sans recours au premier, selon le chant accoûtumé an l'église, exprimé par notes compendieuses exposées en la Preface de l'Autheur d'icelles." Avec privilege. Par Pierre Davantes, MDLX.

A notice of this most interesting book was given by Herr Georg Becker in the "Monatshefte für Musikgeschichte," 1869, p. 163, also, the whole of the Preface and one Psalm are to be found p. 489 Vol. II., of the valuable work of Mons. O. Douen, "Clément Marot et le Psautier Huguenot." But as neither of these may be easily accessible to you, I venture to give you an account of this psalter of Davantes', and of the system which gained for him the title "Inventeur de la musique chiffree."†

* Mr Wooldridge, in his interesting article on Psalters in Grove's Dictionary, states that the edition of 1607 has musical instructions and that some solfeggio-names are added under some of the notes. The Bodleian copy of this edition a copy in my own library, and two others of different sizes in the British Museum have been collated, but in neither case is there any prefatory musical matter or letter notes. It does not follow that Mr Wooldridge has made a mistake, for there is often great irregularity in the making up of books of this period, and I have no doubt he has seen a copy having the contents he describes

† I wish to express my gratitude to Mr Alfred Littleton for placing his copy of this rare book at my entire disposal. Though so exceedingly scarce, there appear to have been two different title-pages, one having the name of Michel du Boys with the device of an open book within a border of branches, the other (as in Mr. Littleton's copy) having the name of Davantes and the device of the Virgula Divina with mottoes in Hebrew and Greek, "Lift up on us the light of Thy countenance, O Lord," and "Knowledge maketh rich"

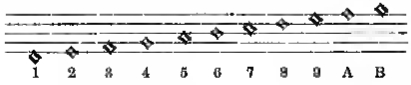
The author commences by pointing out the difficulty which arises, if only the first verse of a psalm has musical notes, of carrying back the eye from the other verses to the tune, and of course it may happen that after turning over, the tune may not be on the same page as the words. He then excuses himself from printing musical notes over every word of the Psalms on the ground that the book would be "beaucoup plus gros, et par ce plus chair, et moins portatif." He says he had long hoped that some musician would invent a simple method of representing tunes to untrained singers, but as no musician has come forward with such a method, he has himself undertaken the task. Taking the ordinary staff of five lines, he places the number 1 below the line, 2 against the first line, and so on up to 9 in the fourth space, he then, in order to avoid double numbers, uses a capital A for the top line, and a B for the space above, instead of 10 and 11, thus.—

These eleven signs are to represent the eleven regular degrees, or diatonic steps, of the voice of a man.

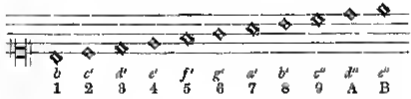
Dots to the left thus, .1, .2, .3, signify that the notes are to be sung "by *B mol*" (by that he means of course, in the *molle* or soft hexachord). Dots to the right signify that the notes are to be sung in the "*chant de ♮ quarré*" (the *durum* or hard hexachord). The absence of any dot shews that the music is "*le chant neutre.*' He explains this "chant neutre" in words which themselves require explanation, for he adds that "musicians say that it is not so hard as that of the ♮ *quarré*, which they also call *dur*; nor so sweet or soft as that of the *B rond*, called also *B mol*."

I can only suggest that these musicians felt that a succession of sounds not coming under a definite hexachord (such as the first or some other of the Church modes) stood, in a sense, midway between "hard and soft" in effect, and so might rightly be called "neuter." But in practice, his "chant neutre" is always the hexachord, or portion of one, commencing with *ut* on the middle C, or, the space below the lines. Davantes' Time-system consists of adding upright strokes, just like those in use in our Tonic Sol-fa as marks of a higher octave. When no such marks are against notes, they are minims, a short upright at right hand top indicates semibreves, double in length, a breve. He uses the sign (I)

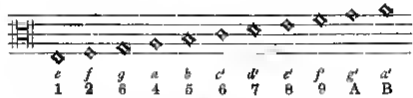
for a rest, and also for the prolongation of a sound. The assumption that the human voice had a compass of an eleventh is curious and interesting, it appears to have been generally accepted. Let us take five lines and see how Davantes' system looks:—



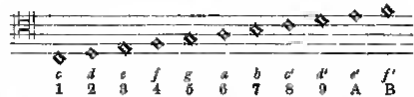
If we place a Soprano clef on these lines, the compass will extend from b to e, thus—



If we place an Alto clef, it will extend from E to a, thus—



If we place a Tenor clef, it will extend from *c* to *f'*, thus—



It will be seen at once that the numeral remains fixed but that it has to do duty for three distinct sounds.

Had Davantes moved his number 1 with the hexachords, or with the clefs, he would have forestalled the numerical system of Rousseau, so much used to this day in France, and advocated by many in this country.

The difficulty and absurdity of Davantes' system may also be shown at a glance by the following diagram:—

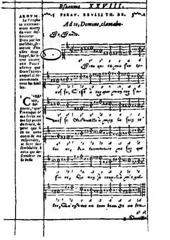
(These are the only clefs he uses.)

The general result is that Davantes' numerical system, far from simplifying musical notation, creates an alternative which is tolerably difficult even for an expert musician to master, and would certainly be most confusing and puzzling to any untrained person.

The reasons for its failure are easily recognisable; it is a mixture of Guidonian hexachords and mutations with a numerical measurement made from three separate starting-points, owing to the use of *fixed* numerals with a *movable* clef. I will now give some specimens of tunes as they appear in his Psalter, so that readers shall be able to form their own opinion as to its worth.

I have selected three examples so as to exhibit the use of the three Clefs, or rather the use of the C clef on three different lines, as shown above. These examples are worth a little study, as I know no better exposition of the practical connection between Hexachords and Solfaing. At the same time they show the utter absurdity of Davantes' system for practical purposes, and they prove that although he may have been the first to associate numerals with notes, he was not musician enough to see the rich possibilities actually within reach.

Davantes only prints the music over the first stanza of each Psalm; his numerical system alone is placed over the remaining stanzas.

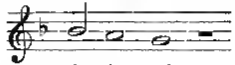

Pseaume XXVIII.
PSEAV. XXVIII TH. BE.
Ad te, Domine, clamabo.
ARGVM.
Le Prophete extremement marry de voir deshonorer Dieu par les meschãs, demende d'en estre deueloppé, sur exercer contre eux Puis asseure que Dieu l'aouye, auquel il recommande tous les fideles.
Croy, Seigneur, que l'inuoque & ma force ne me fay point du fourd, de peur que si tu ne tiens conte de me respondre, ie soyr fait semblable à celuy qui descendent en la fosse

Remarks on Psalm XXVIII.

Notice that the first solfaing is reckoned from the hexachord commencing on middle *c* (*c'*), thus the first note is *sol*, but please observe that its numeral is 6 although it is the fifth of the hexachord from *c'*. It *must* be called No. 6, because No. 1 is invariably the space below the lines.

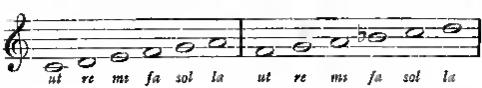
Looking at the numerals 6, 7, 8, below the first three notes, it will be seen that there is a stroke above them to the right; this shows that the length of the note is a semibreve, and that they belong to the 5th hexachord. There are no dots on either side of the next four notes, that shows they also belong to *chant neutre*, or the hexachord from middle c. The first note of the second line of music is fa, the 4th of the *c sol fa ut* hexachord (the 4th of his *chant neutre*), but, the next note to it (*g*) is now called *re* instead of *sol*, that is to say, a *mutatio* has taken place; the tune is about to exceed the limit of the hexachord in which it commenced, therefore, a higher hexachord, one containing the *bémol* of the signature, must be used: we are thus moved into the 6th of the Guidonian hexachords, *f fa ut*. Notice that the sign placed on the left side of the 6 and 8 signifies that the notes are semibreves (𝅝) and are in the soft hexachord. The following notes to the end of this line of music all have this mark ♭ on left, *by B moll*.

Between the 2nd and 3rd lines of the music another mutation takes place. The tune is descending below the 6 notes of the hexachord, and the writer must go back to his original *c sol fa ut* system. The result is worth noticing: the last note of the second line of music is *fa*, but the next note below it (first of line 3) has to be called *la*. Thus:—

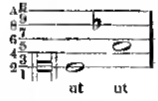


Observe the sign for his semibreve rest. (𝄻)

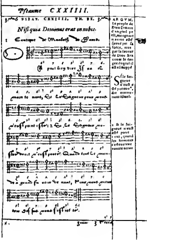
You will now find it easy to follow throughout the tune the system of solfaing, which oscillates between the two groups



Observe that the tune ends on Re, this result (rather astonishing to the modern eye) is inevitable The whole melody is Hypo-Dorian transposed: the last note is its legitimate Final. On the left hand side of the heading of the Psalm you will have noticed this sign, 2⌒⌒⌒5. This is intended to point out that the hexachord commencing on the numeral 2 is interchanged with that beginning on numeral 5 with a flat 4th (soft hexachord). Thus —

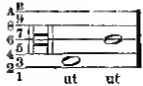


On the right hand side of the heading of the Psalm you will have seen 3⌒⌒⌒A. This is to show the compass of the tune, which extends from the position of the numeral 3 to that of the note represented by A, the dot on the left showing that the *b* is flat. Thus —

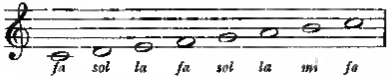

Pseaume CXXIIII.
Nisi quia Dominus erat in nobis.
ARGVM.
Le peuple de Dieu

Remarks on Psalm CXXIIII

On the left hand side of the heading we learn by the sign 3 —6 that the two hexachords used are the one beginning on the note where his numeral 3 falls, and the dot shows that it is *durum*, or contains a *b natural*; and, the other beginning on middle *c* where his numeral 6 falls. Thus:—



The sign on the right of the heading shows the compass, which extends from his numeral 3 to the space above the top line, represented by his B. The solfaing commences in the *c* hexachord, but on the fifth note it passes into that beginning on *g*, this mutation often occurs. It is worth noticing that the last four notes of the tune, instead of being *fa, mi, re, ut* of the *c* hexachord, are solfaed as *fa, la, sol, fa*. We here get a very early intimation (probably one of the earliest), that *ut, re, mi* will at a later period be entirely superseded by *fa, sol, la*. Thus:—

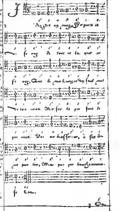


the *mi* being only used in future for the leading-note of a scale, and *ut* and *re* entirely discarded.

Pseaume XXXIX.

ARGVM[ENT] David fuyãt Absalom, & mal dit par Semei comme il est recité a Samu. 16 au lieu de se venger, considere par le changement de son estat, à quelles miseres sont subiectz les plus grands du monde, & recognoit que ceste affliction luy vient de plus haut, à cause de ses pechez, dont il prie d'estre deliuré. Pseaume de grand enseignement pour le fidel affligé contre son esperance.

I'Ay dict en moy mesme: Ie prendray garde à mes voyes pour me garder, que ie ne peche par ma langue & garderay ma bouche d'une muselière, tant que le meschant se ra deuant moy.



Remarks on Psalm XXXIX.

The signs of solfeggio and compass do not appear in the above facsimile; they are at the bottom of the previous page of the work. They are as follows: 1.—.5, that is to say, the hexachord commencing on the space below the line *c*, and that beginning on the position of the numeral 5, that is *g*. The compass is 2.—.9, that is from *d* to *d'*. The melody is in Mode X, and there is proof that no extraneous change of *musica ficta* was allowed to mar its pure modality; for if you look at the last note of the second line and the first two notes of line three, you will find an *f* with a *g* on either side, and it is called *fa*, which could not be the case if it were to be sung *fa sharp*.

We are now in a position to see how far Davantes is entitled to the honourable title of *Inventeur de la musique chiffrée*. Of course this depends on what we mean by the term. I presume we may safely say that he was among the earliest, if not the first, to discover that numerals could be substituted for notes on a stave; but he did not see that this could not possibly be of any practical value so long as his *numbers* remained fixed, while his *ut* started from three different points. In fact a true numerical notation could not exist until a veritable movable *ut* or *do* had become recognized. This did not take place until a century after Davantes, as we shall see later on; so I think that Rousseau must still be credited with the practical application of numbers as signs of sounds one century later still, namely, towards the close of the 18th century.

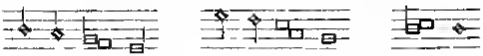
Almost simultaneously with Davantes' book, perhaps in the same year, there appeared a Psalter edited by Pierre Vallete, in which, over every note of music was printed its solfa syllable. The author must have the credit of having forestalled John Day, who did not print his edition with the solfa names by the side of each note till ten years later. But neither Day nor Vallete provided a *continuous* method by which the music could be attached to every word of the Psalter, short of printing music and words *in extenso*. The preface of Vallete contains much of interest. It is headed "Pierre Vallete à tovs fidèles désirans chanter les louanges du Seigneur. Salut." Vallete like his predecessors laments the length of time required by ordinary persons for mastering the art of singing by note, but he says that whereas formerly it was necessary to pass two or three months in study under a "chantre," "maintenant, ne vous y faudra demeurer que quinze jours, ou trois semaines, pour apprendre d'entonner lesdites notes." Vallete, you see, was more modest than the author of John Day's preface, who promised that with "diligence giuen thereunto" a man might master the subject "in

a few dayes, yea, in a few houres." Vallete in the course of his instructions states what at first sight might seem rather remarkable; when you find notes of this sort—

"la ronde faut autant tenir que la quarrée en chantant car chacune ne vault qu'une mesure, ou vn tact, c'est à dire, un baisser et leuer de la main." This statement, that a Semibreve in the then more modern notation was equal to a Breve in the older notation, is of some importance. It was stated, as you may remember, in the English Introduction of 1564, and it is fully borne out in the Instructions given in the German Psalter which I shall next bring under your notice.

Please observe also our author's remark that a semibreve is equal to two beats. This throws some light on the probable *tempo* of music at this period.

Vallete next gives representations of the manner in which more notes than one to one syllable are printed. The signs are of course borrowed directly from the ligatures of plainsong—

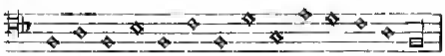


The reader will notice that no hyphens are here used for connecting the detached syllables of a word; they were in fact gradually being brought into use at this epoch, but without definite rules.* Vallete places his Sharp *over* a note, not beside it—

He says that this sign shows that the note is to be taken a semitone above "by raising the voice a little higher than usual" ("en esleuant la voix un petit plus haut que de coustume")—rather a primitive form of direction! The Introduction concludes with a set of exercises on the solfaing compass of six notes, and are reckoned from the note *ut* in three positions, C, F, G.

* A reference to the Part books of contemporary Madrigals shows that words were generally printed without separating the component syllables, provided the music had a note for each syllable. Hyphens are only used when several notes go to one syllable, and when a word is divided between the end of one line and the beginning of the next.

When the seventh (or leading note) is touched in the exercises, Vallete does not adopt the hexachordal system and call it *mi*, but contrary to all systems, names it *fa*, thus :—

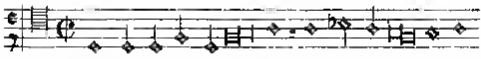


ut mi ut fa ut sol ut la re fa la sol mi ut

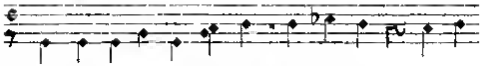
The musical instructions which are found in "Die Psalmen Davids in allerlei Teutsche Gesangreimen bracht: Durch *Casparum Vlenbergium* Pastorn zu Keiserwerd, vnd Canonichen S Swiberti daselbs Coln 1582. (8vo.)" are of great interest and importance, as shewing that at the close of the sixteenth century there existed a large class of persons who, though capable of singing ancient plainsong at sight, could not sing from the ordinary notation. So the author actually provides rules for turning psalm tunes into plainsong notation! I give the Preface in full.

"There are many people, particularly among those, educated in Catholic institutions and clerical schools, who though they understand the plainsong (Chorsang), do not know how to deal with the signature and notes of *musica figuralis*. Wherefore I thought at first of giving the melodies in both sorts of notes for all the Psalms. But when I remembered, how unwieldy that would be, and that it would take a great deal of room in the book, I thought of another way, that could be used even by those who only know the plainsong (Chorsang). And it is this, that for each melody two kinds of *claues signatae* are given, but one signature is divided from the other by a long line drawn across. Now when anyone wishes to have and sing the melodies in plainsong notes (Chornoten), he must only look at the first *clauis*, which is written in the plainsong style (Chorsangsweise), and disregard the other, and sing all the notes equally, like plainsong notes (Chornoten). But if anyone finds difficulty in doing this, he must write out the melodies, which he wishes to comprehend, taking only the first signature, which is written in the plainsong style (Chorweise), leaving the other alone, and place after it the plainsong-notes (Chornoten) that he knows, instead of the Figural notes; writing for the four-cornered ones  , also for the tailed ones  this  , for these tied ones  this  , for these  this  , for the final ones  this  , and he wil

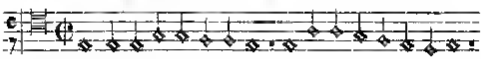
thus have the melodies in plainsong-notes (Chornoten). For example. The melody of the 30th Psalm is:—



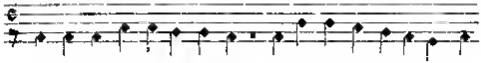
"Anyone wisbing to turn this into plainsong, will remove the ♮ with tbe sign ♮, and change the notes in the way just mentioned, and this would be the result —



Again, the Penitential Psalms begin:—



If the Figural-signature with the sign is now removed, and the notes, in the order in which they stand, are changed, this results:—



"As to the pausa or sign of silence, which is written —, the chorister (Chorsenger) should know that when it occurs, he must remain just so long a time silent, as it would have taken to sing a note like this 𝅗𝅥, in mensuration one beat, about as long as it takes to draw breath properly. The melodies are so arranged, that each syllable has its own particular note, for I have not thought it advisable in this work, to make long series of notes over one word. But it sometimes happens, though not often, that in the middle of a Psalm a *versus* is necessarily lengthened by one syllable, so that at a convenient place, two syllables must be squeezed under one note: where this happens, this sign ⁀ is placed, signifying, that both syllables, under which the sign stands, belong to one note, and the same note must be broken there. Every melody can therefore be brought into plainsong, and with great ease too; those that go from the *g b moll* may

seem rather more difficult to the inexperienced chorister (Chorsenger); but are not really so, if one only knows how to keep the particular character and style of a minor key (bmollargesangs). But several such melodies, if they occur more than once, I have transposed, to aid the chorister (Chorsenger), from the *g b moll* to *d b dur*, as it is to be found in the melody of the other Psalms; so as to be easier for the plainsong (Chorsang).

"Do not doubt, that whoever has a slight knowledge of plainsong, will, by the help of these instructions, be able to grasp and use the melodies. May this then happen to the honour of Almighty God, which this work seeks, Amen."

The importance of the direction that semibreves and minims are alike to be rendered by the same sign in plainsong I have before alluded to. The remainder of this paragraph will be very useful to students. Notice also the attempt to fix a metronomic standard by a "beat" being "about as long as it takes to draw breath properly." Our author has described a method of turning the then modern notation into the older, most of us will be glad to reverse the process, and learn how to read the older by the light of the later.

A somewhat later German Psalter, published in 1606, contains a Preface which has an important bearing on the position of the Choral, Church-song, or melody, in harmonized Psalm-tunes. I will read a translation of the title and Preface.

"The whole Psalter by Ambrose Lobwasser, Doctor.

"Here given from the French composition, with the same melody and number of syllables daintily and charmingly brought into German metre. Similarly, some Psalms and spiritual songs of Martin Luther and other learned divines. Now newly set in four parts, so that the melody (choral) is always in the Discant, this never having been so printed before.

"By Samuel Mareschal, musician and organist to the town and University of Basle.

"Printed at Basle. Ludwig Königs. 1606."

PREFACE.

"I have learnt through experience that placing the ordinary voice-part or usual melody in the Tenor, is not suitable for the sort of singing as practised in our churches, with the whole congregation to sing. For it brings these, unlearned in music (the larger part of the congregation), often into a state of uncertainty so that they often know not what is

being sung, because the melody (choral) is crowded among the other voice-parts which are some being sung above, some below. So a few years ago I took many of the best known Psalms and spiritual songs of Martin Luther and other learned divines, and placed the melody (Choral) above in the treble (Discant), and thus arranged the composition in such a way, that not only can everyone at once hear what is being sung, but anyone, man or woman, old or young, unhindered by the other parts, high or low, as fitting to each one's voice, can join in the singing of the melody (Choral).

"And this work of mine having being well received, I have undertaken something further of the same sort. I have taken the whole Psalter, as done by Ambrose Lobwasser, from the Hebrew text, with the French composition in melody and number of syllables, transferred straight into the German text—which has been in print for thirty years past—and put the usual melody (Choral) in the treble (Discant), in "simplici contrapuncto," as is expected in such songs when the whole of the congregation sings. Other compositions, some French, some German, are also given here, but in a different manner." (etc.)

I have been unable to trace any musical Instructions in Dutch Psalters. One reason for this is because so many of their early Psalters had the solfa letters placed against the side of the notes; and when this is the case, formal Instruction is of course unnecessary. In our early English Psalters it is an invariable custom to omit instructions when the letter-note system is used. I mentioned just now that this system was introduced into an English Psalter in 1570. Ten years later, namely, in 1580, we find it adopted in "Het Boeck der Psalmen Davids—door Phillips van Marnix. Antwerp" (8vo). In the next year an edition of the celebrated Psalter of Dathenus was published at Dordrecht with letters against the notes. Similar editions were issued from time to time till the middle of the following century. The great success of Dathenus, whose version was first printed in London in 1566, was due to his having adopted the same metres as Marot and Bèze, thus enabling his countrymen to enjoy the beautiful melodies of the Huguenot Psalters. The compilation, by order of the States-General in 1773, of an authorised version which superseded all others, threw into disuse Dathenus' popular book, amongst many others more or less in use.

The Psalters of Este, 1592 and 1594, are without any musical instructions; so also is Ravenscroft, 1621, although there is a short preface on the notation of music, addressed to "Harmonicall Brethren," in which the author confesses that he has not attempted to study the Hebrew music-accents, but says they are somewhat similar to those used in

the "Rushian Church who had their skill in musicke from the Graecians." Evidently Ravenscroft's notions of musical history were slightly confused. He goes on to say that a staff of 4 lines is used in the Church for "Phonaskes," and a staff of 5 lines for "Symphonaskes" or parts compounded of 2, 3, 4, 5, 6 voices,* and a staff of 6 lines "for instrumental musicke as Organs, Harps, Lutes, &c."

The first issue of Playford's "Whole Book of Psalms," 4to, 1671, contains no directions, nor are any in his 8vo Psalters, 1677 to 1695 and onward, but in later editions (*e.g.* the 12th in 1713), a few pages of instructions are printed from engraved plates.

In these, Playford has not had the courage to ignore altogether the hexachordal system and names, but he drops the Ut, and adopts the "Fa, sol, la, fa, sol, la, mi, fa," for his solfeggio

The complete Tate and Brady "New Version" of 1698 is without any music. But though there is music, there are no "Directions" in the Supplements of 1700, 1702, 1703, and 1704; but those of 1708, 1712, and 1716 have "Plain Instructions for all those who are desirous to learn or improve themselves in Psalmody, &c" In both sets of instructions the hexachordal system is given, but as the tunes are all printed in two parts only, in the Treble and Bass Clefs, the treble and bass notes only are grouped in the diagram, and the old grave, and hard, and soft hexachords have disappeared, with their round and square *b*, a first step towards ousting the Guidonian system In solfaing *ut*, *re*, *mi*, is superseded by *fa*, *sol*, *la*.

Although not a Metrical Psalter, a little book published in 1686 deserves careful notice. It had for its object the simplification of the art of solfaing, and by this means the encouragement of psalm-singing, and the author's introduction is followed by a selection of psalm-tunes. As far as I know, this work contains the earliest attempt to use modified solfa names in order to provide a singer with the means of escaping the mutation of hexachords. This attempt therefore, though not successful, encloses the germ of those modified solfa names the utility of which was discovered 150 years later by advocates of the *movable do*, and also, by imitation, those pledged to the *fixed do* system. The following is the title: "A New and Easie Method to Learn to Sing by Book Whereby one (who hath a good voice and ear) may, without other help, learn to sing true by Notes, Design'd chiefly

* This use of the word "phonask" for an unaccompanied single-vocal part is fortunately as rare as it is unclassical. I presume he derived it, not from φωνασκὸς but from φώνασις, an exercising of the voice in declamation. The use of "symphonask" for part-singing is even less justifiable. We may well congratulate ourselves that both terms are obsolete

for, and applied to, the promoting of PSALMODY; and furnished with variety of PSALM TUNES in Parts, with DIRECTIONS for that kind of Singing. Licensed Jan. 29, 1685/6 Rob Midgley, LONDON Printed for William Rogers of the Sun, against St. Dunstan's Church in Fleet Street 1686."*

The author's trenchant criticism of the system current in his time is as logical as out-spoken He says in his Preface:—

"That so few persons (out of cathedrals) understand Prick-Song a main reason is, the Obscurity and Confusion in the Method commonly taught, wherein the following Particulars make it a long drudgery to attain proficiency

"1. At first sight, we have presented a long Bead-roll of hard and useless names, to be conn'd backward and forward in the Gam-ut.

"2. When this drudgery is over, follows a worse, to learn differing names of the notes, according to the several places of *Mi*, which in each Cliff hath three several stations, being one while in *B*, another while in *E*, another while in *A*, the other names (*Fa*, *Sol*, *La*,) attending its motions.

"3. When you are past these two, and can name your Notes three manner of ways, you are yet to seek for the chief thing, the Tuning of them, if you have not a Master at hand to lead you with his Voyce or Instrument.

"4. A fourth difficulty arises from the many Cliffs, which no less than seven ways change the places of the Notes upon the Lines and Spaces, and makes it a most tedious thing to be perfect in all, or but some of them.

"The removal of these difficulties, and thereby the Encouragement of Learners is that which I have endeavoured in this Essay. What I have done in order thereto, I shall here give the Reader some account of."

"First, as to the Gam-ut, omitting the old Names of the Notes as unnecessary, I retain only the letters of the Alphabet, by which the Notes are therein express'd. These letters being seven, A, B, C, D, E, F, G, I assign them as Names for the seven Musical Notes, taking only the liberty (for better sound sake, and indication of the Half-Notes places) instead of calling these three letters A, E, F, as in the Alphabet, to name them La, Le, fa.

"When a Flat or Sharp alters the nature of a Note, its Name also admits the like alteration, yet so as to keep the Letter belonging to the Line or Space, thereby making the change to be of no trouble to the Memory, but an help to sing the Notes in Tune. So B being sometimes sharp, and

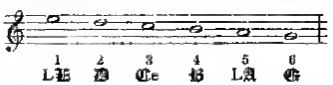
* Dr McNaught also quotes from this book in his admirable paper on "The history and use of the sol-fa syllables," read before the Musical Association, January, 1893

sometimes flat, I call it 𝔅 when it is sharp, and 𝔅e when it is flat, as in (Begin, Before) with a softer sound, and therefore the more agreeable to a flat or soft Note, as the other is to a sharp.

"The like is done by 𝔊, 𝔊 being a Vowel hath before it, when sharp an L, and when flat an M.

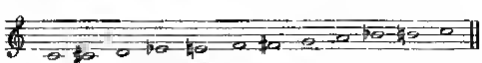
"By this means we have seven distinct Names for the seven Notes, keeping always the same places in each Cliff, and those Names such as both comply with the Gam-ut so much as is needful, and also with the Alterations that are made by Flats and Sharps, without burthen to the Memory."

Having thus formulated seven names for the seven degrees of the scale, our author wonders why musicians only use "4 or 6"; and he quotes Dr. Wallis, who, speaking of the absence of any name for the seventh degree of the scale says, "quod mirum est Guidonem non vidisse et praecavisse." We all think so too! Our writer then recommends students to learn "to tune the voice" (that is, to learn pitch and intonation) by listening to Bells, such being an easy method "in this Ringing Island," and six of them being enough to show the position of the semitone. But this step forced him to number his notes like bells, that is downwards, thus:—



and this makes some of his explanations rather puzzling at first glance. Moreover, it brings him dangerously near the very hexachordal system from which he is struggling to release himself. After this, he claims to have further simplified labour by reducing his clefs to two, Treble and Bass. Here he deserves great credit, for I believe the three-part tunes he gives are among the earliest examples of a *Medius* being written in the treble clef.

The following exhibits his whole scheme of nomenclature:—

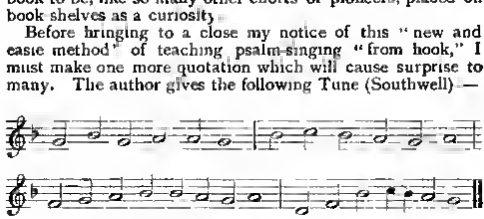


These must be pronounced as follows:—

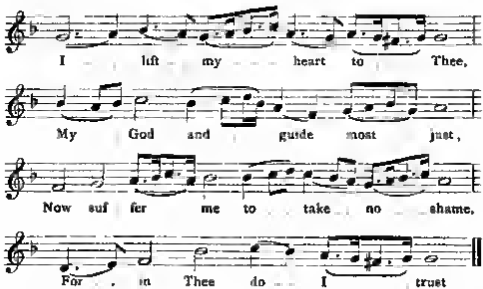
Seh, See, Dee, Mee, Lee, Faw, Fah, Gee, Lay, Beh, Bee, Seh.

He avoids any scale involving an A flat, in the thirty-one pages of psalm-tunes with which the work concludes, so *La* is not modified. You can gather from what I have said that our author was provokingly near making a valuable discovery and revolutionizing musical methods, but his fixed letter-system and his unlucky appeal to "six bells" caused his book to be, like so many other efforts of pioneers, placed on book shelves as a curiosity.

Before bringing to a close my notice of this "new and easie method" of teaching psalm-singing "from hook," I must make one more quotation which will cause surprise to many. The author gives the following Tune (Southwell) —



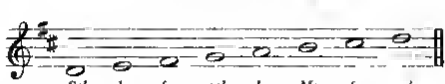
He then adds: "The notes of the foregoing tune are usually broken or divided, and they are better sung as they are here pricked" —



I shall have to say more about "graces" later on, when speaking of Godeau's French Psalter which advocated their use in psalm-singing more than thirty years earlier. But although the tune just given was not the *first* sign of downgrade, it is proof of the English tendency in this vicious direction. I should like to say in passing, that I attribute the rapid spread of vocal ornamentation at this epoch to the increasing use and popularity of the Violin. I think it more probable

that singers imitated the "figuration" they constantly heard perpetrated by fiddlers, than the graces more specially suited to, and used on the harpsichord. Players on the new "Treble Violin" must also naturally have been delighted at the power they now possessed of "slurring" from note to note; of course, the frets on the finger-board of a Treble Viol made a *portamento* absolutely impossible. It is easy to see that singers would be only too pleased to imitate violinists in this respect. Hence the constant directions for the *port de voix* in books of this period.

Signs of dissatisfaction with existing systems of instruction continued to show themselves. Thirty-nine years later another book appeared, "An Help to the Singing of PSALM TUNES by the BOOK. In a method more easy than is generally taught. With DIRECTIONS for making an Instrument with one String, by which any TUNE may be easily learned. As also A large Collection of TUNES in Two PARTS. With Psalms, Hymns, and Spiritual Songs, in various Measures. By *W. S.*" &c. "London: Printed, for Richard Ford, at the *Angel* in the *Poultry*, near *Stocks-Market*. MDCCXXV." This book contains 31 pp. of "Help," 82 Tunes in two parts, followed by 262 pp. of Psalms and Hymns, Indices, &c. The author at once acknowledges his obligation to the 1686 book just described, although he does not blindly follow the method there proposed. Like his predecessor, he renounces the *C clef* with its shifting positions. His idea is, to keep the word *Mi* to represent only the fixed note of the normal scale, and to call the movable semitones *Fee-sol*. Here is his scale in D:—



The first note is called *Sol* because it is the second note of the normal Scale C which begins on *fa*; this makes the next *la*; then comes *fee* for *fa-sharp*, followed by *sol*, *la*, *mi*, from the normal scale; and lastly, a new *fee* for *fa-sharp*, he ends on *sol*, because it is called *sol* in the scale of C.

Surely this is "confusion worst confounded!" No wonder that this book now lies with its predecessor among other rare curiosities! As if this were not enough, our author tumbles into the old snare of teaching by six *bells*! But as so often happens, some of his casual remarks are important. For example, he says:—"The voice should be drawn out at a *Semibreve*, about as long as you may tell four in an ordinary reading Time; saying 1, 2, 3, 4" (The word "tell" is of

course used in its old sense, "count.") This metronomic direction would, I think, lead to a much faster *tempo* for tunes than has been generally attributed to this period.*

I have more than once had reason to suspect that the notes *fa* and *la* were not always called *fah* and *lah* as in Italian, but were anglicised at this time into *fay* and *lay*. I do not say that this was universal, it may have only been a dialect form. But if our writer's rhymes are to be trusted, he at least intended them to be so pronounced:—

> "When F or C are sharp, you may
> Then call them Fee, otherwise Fa."

and elsewhere he says:—

> "Also when A is sharp, you may
> Then call it Lee, otherwise La."

In another place he says that *la* is pronounced as in the word *labour*; he adds, *fa* is pronounced as in the word *father*. But those who think he is here contradicting himself must remember that *fayther* is a common dialect form of *father* to this day.

We can now leave these two interesting quasi-psalters.

I must leave my subject for a time, and make a short digression. In manuscript ritual music the words and music of hymns are sometimes written out at full length, and this was imitated in what was (as far as I know) the earliest printed Hymnal with continuous music, thisis: "Hymnorum cum notis opusculum insigns ecclesie SARUM subserviens in quo quidem et illud imprimis est observatum ut quilibet syllaba suam participet notam id sane cum extrema manu curatum, ut singula singulis sibi corespondeant suisque debitis rite coaptentur locis. Impressum Londini per Joannem Kyngston et Henricum Sutton Typographos 1555." The value of this work is much reduced by the shockingly bad registration of the black notes on red lines it is a most discreditable specimen of music-printing †

* The most curious attempt to give a metronomic value to notes which I have ever met is quoted in an article by J. F. R. Stainer, in the *Musical Times* of October, 1899, from an old book (about 1700) giving a description of "musical birds in this kingdom" and showing how they can be taught tunes by means of a small flageolet. It is as follows:—"Two minims make a semibrief and a semibrief is the length of the natural song of the wild chaffinch. I except the Essex chaffinch which is longer than ours are in these parts. And 28 semibriefs is a minute of an hour." As this author almost always uses a crotchet for each beat this would make ♩ = 112.

† About thirteen copies are known to exist, one being in the library of Magdalen College, Oxford.

In 1572 was published at Heidelberg, a Psalter which contained a note of music for every syllable of text throughout. It was entitled "Die Psalmen Davids in Teutische Gesangreymen nach Französischer melodien unt sylben art mit sonderlichen fleise gebracht von Mellisso." But this expensive method of publication does not appear to have become fashionable in Germany.

Later on, towards the middle or end of the 17th century and onward, when there was a large demand for French Psalters, the printers set them out in full, giving a note of music over every syllable, just in the same manner as Helmore printed the prose version of the Psalms in the well-known Psalter Noted. This "setting out in full," which Davantes shirked in 1560, but which afterwards became so common amongst continental Protestants, seems not to have been attempted in this country till 1688, in which year there appeared "The whole book of Psalms, as they are now sung in the Churches, with the singing notes of Time and Tune set to every syllable, made plain and easie to the understanding of all that can read; by the directions in the latter part of the preface." "Never before done in England." Then is given Col. 3, 16.

"διδάσκοντες καὶ νουθετοῦντες ἑαυτους, ψαλμοῖς

καὶ ὕμνοις καὶ ᾠδαῖς πνευματικαῖς.

"Licensed, July 26, 1688, London.

Printed by R. Everingham for the Company of Stationers, and are to be sold by E. Brewster in St. Paul's Churchyard and S. Keeble near the Temple-gate. 1688."

I quote at once from the Preface a curious attempt to lay down a metronomic standard:—

"The first Time 𝅝 (and which is least used) is called a Brief, or two Times, or, a double Time, being about the duration of eight pulses at the wrist of a person in good health and temper . . ."

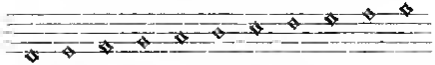
This statement is of considerable interest. Assuming that 70 to 80 is the average number of pulsations in a healthy human being, this will give a metronomic standard of 𝅗𝅥 = 70 to 80. If you sing or play a psalm tune at any pace between these limits, you will find that it is much more rapid than that generally attributed to our ancestors' style of singing. But of course such a standard is very variable, many healthy persons have a very slow pulse, not much above 60. Yet I am inclined to think the author wished to make a 𝅗𝅥 = (say) 72 to 75.

Then having treated of Time on this basis and having thrown in a few remarks about the faults of the *clerks* of his period, he goes on to say:—

"The next thing to be spoken of is, the lowness, or height of the voice, of which there are eleven degrees, plainly demonstrated by five Lines, upon and between which, the Notes (aforementioned) of the *Tunes* are set. Wherein observe, That the degrees of the Voice are alike unto the difference in the Sounds of Bells, save that in singing is practised a two-fold contrary order to that of the Bells: For in ringing, the smallest and most shrill Bell (which begins first) the Ringers call the Treble or lowest; and so the Bells go (in their terms) upwards to the biggest, and most full expression of the Sound: But tha first note in singing begins at the biggest and most full delivery of the Voice next to grumbling, and so goes upwards to the smallest and most shrill utterance of it next to squeaking; so that what soundings the Singers call downward, the Ringers call upward."

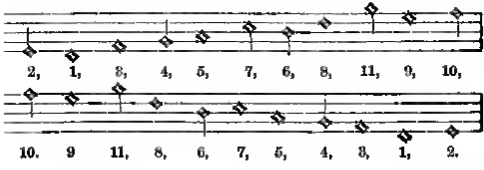
It is difficult to see what the author gains by calling attention to the difference, or rather contrariety, between the naming of a scale for the voice and that for bells, unless we are justified in assuming that people at this time were more familiar with bell ringing than psalm-singing! He then proceeds to give exercises on the numerical system:—

"Begin to tune your voice at the lowest degree, which is at the first Note, and is under the lowest line, and sing the numbers upward, one, two, three, and so forth, up to eleven, and then sing them backwards down again, eleven, ten, nine, and so back down to one." (For convenience 11 is to be called 'levn.) He then gives the Scale thus—

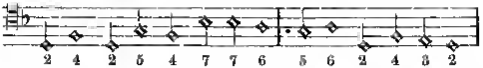


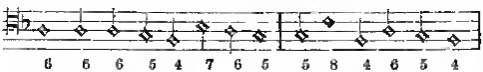
Please notice that he goes on boldly to eleven, not stopping at 9 nor using a capital A and B as did Davantes.

A little later he gives an exercise which includes semibreves and minims, not on consecutive notes of the scale—



By these examples it is quite evident that our author does not mean to make his number *one* a movable, key note, but a fixed sound. But in order that there should be no mistake about the fixity of his number *one*, he gives half of the set to Psalm I., as follows :—





Later on, a paragraph, about what formerly had been in use, is interesting :—

"Musicians in teaching to Sing, did use to give unto the Notes of the degrees of the Voice these seven terms, *ut*, *re*, *mi*, *fa*, *sol*, *la*, *ci*, as the French yet do, but now they teach by no more than four terms, *sol*, *la*, *mi*, *fa*, and so double the repetition of either sort of terms, until they come up to the number of eleven, as thus :—

Ut, *re*, *mi*, *fa*, *sol*, *la*, *ci*, *ut*, *re*, *mi*, *fa*.
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

But now they change *ut*, *re*, into *sol*, *la*, and do teach thus :—

Sol, *la*, *mi*, *fa*, *sol*, *la*, *fa*, *sol*, *la*, *mi*, *fa*."

I am afraid our author shows by this example his ignorance of the subject about which he is writing, because this last represents the scale of F, though beginning on C, whereas, he started with a scale of C. To reproduce his original scale of C it should have been written thus :—

Fa, *sol*, *la*, *fa*, *sol*, *la*, *mi*, *fa*, *sol*, *la*, *fa*.

Unluckily for us, though fortunate for his reputation, in printing out the Psalms in full, he has put no numbers under the notes. In this respect he did not, as you see, follow the

example of the older French book. Whether he was cognisant of the previous book or not, it remains very interesting to find this hopelessly impracticable system turning up after an interval of 120 years. It is a wonder that he did not at once perceive that a *fixed-one* system made change of key impossible without some modified syllables or other device. How delightfully easy it would be to teach singing, if (as assumed by these two authors) all human beings possessed the sense of absolute pitch, and had but one uniform compass of voice!

The story of the *Paraphrase des Pseaumes de David, en vers François par Antoine Godeau, euesque de Grasse et Vence* is probably familiar to you all. The French Catholics recognising the enormous influence of Psalm-singing among the Huguenots issued Bishop Godeau's version for the use of *Catholics* in 1645, as a sort of counterblast. Following on this an edict was issued forbidding the Huguenots to sing their Marot and Bèze. But a very unexpected result followed, the Huguenots rather than sing no Psalms, took the Catholic paraphrase into use. In order to suppress this, a cruel edict forbade them to sing metrical psalms in the French language. The ultimate result was that Godeau's version died out, after having gone through many editions, set to music by four different composers, Jacques de Fouy (1650), Antoine Lardenois (1655), Artus Aucousteaux (1656), and Thomas Gobert (1659). The two most used were those issued under the musical editorship of Lardenois and Gobert. I am so fortunate as to possess copies of both these books. Lardenois introduced some popular melodies into his issue, and Louis XIII. is credited with having composed four tunes in it. Gobert seems to have composed the whole of the tunes for his edition, and dull and dry they all are. But in the Preface which was included in some, not all of the copies of Gobert, the writer says "il ne faut pas obmettre à bien faire les ports de voix, qui sont les transitions agréables, et les anticipations sur les nottes suiuantes." "On doit observer à propos les tremblements, ou flexions de voix qui se sont principalment sur les mi et sur les dièses, et sur tout bien faire les cadances, dont la grace consiste à appuyer les ports de voix qui doiuent précéder." I believe this to be the earliest case in which musical graces were recommended for use in psalm-singing. But I fancy the Huguenots never sacrificed the beauty of a simple rendering in order to popularise their tunes. The *port de voix* was the slurring up or down to a note, and anticipating it in the rhythm. A *tremblement* was a sort of short shake, such as those so common in *clavecin* and *harpsichord* music. The *cadence* was a full *trillo* preceded and closed by a *turn*. But this direction in Godeau's Psalter is an unconscious witness of

the fact known to all students of church music that the French from the latter part of the 17th century, up to the end of the 18th, absolutely ruined the grand old plainsong of their church by profuse common-place ornamentation.

A French Psalter of 1686 is of interest, as being one of the very few in that language printed in London. Its title is "Les Pseaumes de David mis en rime Francaise, par Clement Marot et Théodore de Bèze. à Londres. Imprimé par R Everingham, 1686" (12mo). The Bodleian copy of this is bound up with the complete French Bible, also printed by Everingham in 1687. The musical instructions are very short. After the usual lament over the difficulty of mastering singing by note, the reader is told that the lowest line of the stave is always *ut*. The C clef on the middle line being always used, a *b* flat is required in the signature to form the diatonic scale of F. The leading note is called *si*, but when it is flattened in order to admit of a melody in the key of *B flat*, the note *E flat* is called *fa*—*e g.* :—

A few years later, in 1694, some interesting Instructions are found in "A Collection of some verses out of the Psalms of David: suited to several occasions. Composed in two parts, Cantus and Bassus. being the common tunes to the Psalms in metre now used in Parish Churches. To which is added, some instructions for singing of them. Collected by Mr. Daniel Warner. Revised by Mr. Henry Purcell.

"In the Savoy. Printed by E. Jones: and sold by the author at his house at Ewelme in Oxfordshire. 1694." (Front 8vo.)

This is a selection from forty-four of the Sternhold and Hopkins version of the Psalms, with the words and music printed continuously from beginning to end, the *cantus* on the *verso*, the *bassus* on the *recto*. But the Canticles and a few "Hymns" are printed in the ordinary way with the treble over the bass.

The compiler in his Preface finds fault with Ravenscroft for having given the melody (plainsong) to the Tenor voice, and for giving it "prick'd with the *C fa ut Cliff*," therefore *he* has followed Playford's Psalter with music in three parts, and has used nothing but the G and F clefs, and, to still

further simplify it, he has given the tunes in two parts only. One sentence in the Preface may require a little explanation. The author says: "Those who shall make use of these Books may sing without the Scots way of reading the words, and do it in a standing posture" This means that as the music is continuously printed over the whole of the words, there is no necessity for the Clerk or Minister to *read out the words of each line before it is sung*. This remarkable custom of pulling up at the end of every line in order to hear the words of the next, is still kept up in some of the outlying districts of Scotland. The Scots used to sit to sing, and stand when praying; Mr. Daniel Warner, no doubt with a view to the better expansion of congregational lungs, wisely suggests a standing posture for Psalm singing. With regard to the *tempo* of tunes, Mr. Warner is concise, he says "As to the Tunes, they are neither swift nor slow, but of a fit mean between dulness and precipitancy." I am afraid the writer, could he listen to psalm or hymn-singing in these days, would find that we have not yet discovered this "fit mean between dulness and precipitancy." The diagram of the Gamut is extended beyond the old limits, namely, from *CC fa ut* to *A la mi re in Alt*, that is from C_1 to a''. This is an intimation that musicians were beginning to realize the inadequacy of the Compass of the Hexachordal system, merely G_1 to e''. The limitation must have been so obvious that it seems extraordinary that theorists should have adhered to it so long, especially if it be remembered that the possibility of enlarging its *ambitus* had been proved by the many instruction books issued for the Harpsichord. A century before this particular psalm-book was issued, namely, in Morley's "Plaine and easie Introduction," you may remember Philomathes asks his Master why the Scale "was devised of XX. notes and no more," to which his Master replies, "Because that compasse was the reach of most voyces: so that vnder *Gam ut* the voice seemed as a kind of *humming*, and above *E la* a kinde of constrained *scricking*."

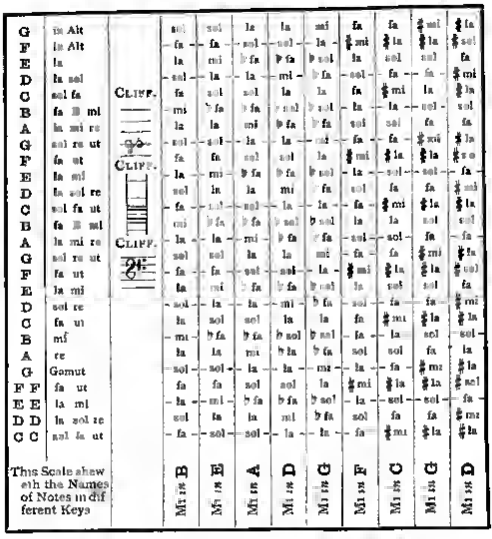
This answer seems to have satisfied the curiosity of Philomathes in 1597, but in 1694 we find both the "humming" and "scricking" authorized in this book with the name of Henry Purcell as reviser. The solmization in the Select Psalms now under our notice is on the system of *fa sol la fa sol la mi fa*. This method had at this period become firmly established in this country owing to the widespread influence of two popular educational works, Playford's "Introduction to the skill of Musick," first issued in 1655, and Christopher Simpson's "Compendium," first issued in 1667. Both these works passed through a large number of editions. Rhyming verses were taught to young

people inculcating the way to localize the *mi*. These rules are printed in the Instructions before us.

Our author uses some curious terms, he speaks of "breaking of notes" where we should now say "singing intervals." Another expression which he uses is of importance as showing the growth of musical terminology at this time, the close of the seventeenth century. He describes three clefs (although in the book he only uses two of them), the *G sol re ut*, *C sol fa ut*, and *F fa ut*, that is, the Treble, Alto or Tenor, and Bass clefs, and he says these are the three *signed cliffs*, a term, you may remember, used by Daye, just 130 years previously. But his expression also implies that there might be other "cliffs" not in the signature, showing that there were *cliffs* or *keys* which could exist without being *signed*. Such was a fact, for at this time we commonly find music in the key of B flat with only one flat in the signature, and sharp keys had usually one less sharp in the signature than we should now give, the required leading note being made by an accidental. It is evident therefore that the words *clef* and *key* were not yet completely disentangled.

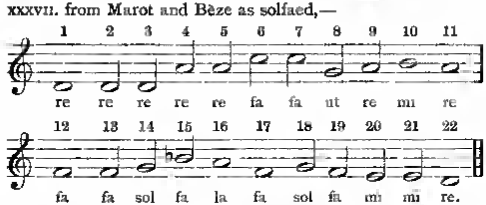
"The Psalm-Singer's Necessary Companion," published in 1700 (although the Preface is dated 1699), follows Purcell's good example. The author says plainly "there be some notes in Vocal and many notes in Instrumental Musick that doth (*sic*) exceed these (*Gamma ut* and *e la*)" and he too carries his diagram from C to a'. Twenty years later (about 1720) a certain Israel Holdroyd published "The Spiritual-Man's Companion," in which he not only somewhat extends his diagram of the Gamut, but he makes it do duty for the keys of C, F, B flat, E flat, and A flat, G, D, A, and E. His attempt to push the (then) remote keys into the old system shows with what deep-seated reluctance the human mind casts away anything clothed in the shabby and tattered garb of respectable age. I will now give Holdroyd's diagram in full. The reader will at once notice that if he had simply stuck to the list of leading notes (*mi*) at the bottom, the whole of the superstructure might have been dispensed with.

"The Gamut *or Scale of* Music, *as allowed by the Moderns*: *The first two Columns of which, every Learner must of Necessity observe to get perfectly off; beginning at* G *in* Alt, *and proceeding to* CC, sol fa ut, *and then from* CC, sol fa ut, *to* G *in* Alt. *Ascending and Descending, 'till he can with Readiness, Ascend and Descend upon each Rule and Space, as in the* Gamut, *always observing to count from the* Cliff where ever he finds it plac'd"—



I should like to make here a short digression in order to combat a popular error. Most people when they see the *ut* of the hexachords starting from three different notes C, G, and F, jump to the conclusion that a system of *movable do* existed in the 16th century. But they quite disregard the fact that in nine cases out of ten the reason for going from one hexachord into another was not because a modulation or change of key required it, but simply because the extension of the melody beyond the limit of six degrees compelled the use of a fresh hexachord in order to provide the necessary sol fa names. For example, if a melody which started on middle C, reached the leading note b, the only way to name it was to assume that it was the third of the hexachord commencing on G, so it was called *mi*. Again, if the melody in the key of C happened to include a passing b flat, the only way of finding a name for it was to assume that it was the fourth of the hexachord commencing on F, so it was called *fa*. An examination of the tunes which had sol-fa letters

printed by the side of each note will soon prove to any one how completely the hexachordal system was alien to what we now understand by a *movable do*. This is more apparent in the attempts our ancestors made to sol-fa a melody in the minor mode. Here are the first and last lines of Psalm xxxvii. from Marot and Bèze as solfaed,—



I have numbered all the notes for reference. Nos. 1, 2, 3, are *re* in the *c sol fa ut* hexachord, but as Nos. 6 and 7 exceed the compass of this hexachord, the *g sol re ut* has to be called in, therefore Nos. 4 and 5 are *re*, this hexachord continues to the note A, No 11. The notes Nos. 12 and 13 are below the *g sol re ut* group, they have therefore to be reckoned from *C*, thus they become *fa*, and No. 14 becomes *sol*, but note No. 15 can only be found in the *f fa ut* hexachord, therefore it is *fa*, but Nos. 16–22 can be found in the *c sol fa ut* hexachord, so this tune in D minor is brought to a happy conclusion on *re*.

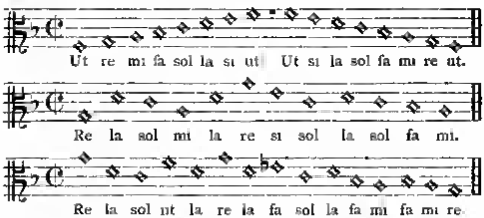
I commend this extract to the study of enthusiasts who talk about a 16th century system of movable do. When in the middle or towards the close of the 17th century the syllable *mi* was used to fill up the gap of the leading note, and was kept solely for this purpose by ejecting the previous *ut re mi* and substituting *fa sol la, then* a veritable movable *do* began to be evolved, but not before.

There exists a most interesting French Psalter printed in London in 1722. The title is "Les Pseaumes de David, mis en vers Français, par Cl. Marot et Theodore de Bèze. Nouvelle edition toute en musique, et dans laquelle on a ajouté sous chaque ligne du chant ordinaire, une Basse Chantante en partition. Londres. Imprimé par Guillaume Pearson, en Aldersgate Street. MDCCXXII.

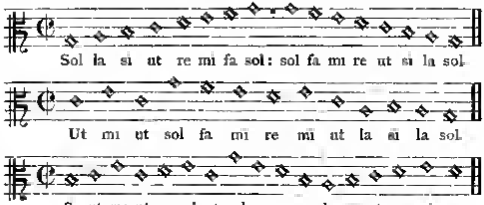
The words are printed between the two parts, Treble and Bass; the book has a very sensible preface, and one page of explanation of keys and scales. It was prepared and issued by a Committee, who succeeded in turning out a useful work, beautifully printed and very correct. Incidentally, the author of the preface states an amusing fact. He says, "Ordinarily amongst the Protestant Refugees, they used

to sing the Psalms in 4 or 5 parts as composed by Goudimel or Claudin 'ce qui faisoit une très agréable harmonie', but that when they sang only the treble and bass, leaving out the middle parts, one noticed that the harmony was very incomplete and 'pleine de faux accords.'" Naturally so! but the bass part given in this Psalter is good and satisfactory.

"Les Pseaumes de David, mis en vers Francois, Revus et approuvés par le Synode Walon des Provinces-Unies, Nouvelle Edition. A la Haye, Chez P. Gosse & J. Neaulme. 1731." This book gives the most concise and curt Directions I have ever seen. "Avertissement. Principe de la Voix du B-mol: c'est à dire, quand il y a un *b* proche la Clef, il faut toujours prendre Sol." (This signifies, that when there is a flat on B in the signature, the line on which the clef stands will always represent *Sol*).—



"Principe de la Voix de B-carré: c'est à-dire; que lors qu'il n'y a point de B proche la clef, il faut toujours prendre Ut sur la Clef" (meaning, that when there is no flat in the signature, the line on which the clef is placed will always be Ut).



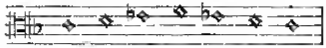
The secret of the possibility of such conciseness is discovered when the book is opened, for all the tunes are in the C clef,

and are either placed in the open key, or that of F. I should add that the music is written out in full, in a small but beautifully clear type.

The following is interesting "Les Pseaumes de David mis en vers Francais, revus et approuvés, par les Pasteurs et les Professeurs de l'église et de l'Academie de Genève. Nouvelle édition avec les cantiques sacrés, à laquelle on a ajouté la Basse, qu'on a réduite sur une seul Clef pour la commodité de ceux qui chantent cette partie, et où la musique est très exactement corrigée. A Genève chez Pierre Pellett. 1742."

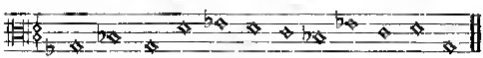
In this Psalter the Tenor (melody) and Bass are both given, one facing the other on the opposite page. All the melodies are so arranged that they appear to stand in the key of F, in the Alto clef with one flat in the signature. The Bass part is in the F clef placed on the third line. The two clefs are therefore the Alto and Baritone.

But the "Principes pour le Tenor" and the "Principes pour la Basse," which give preliminary Exercises in solfaing, show some curious anomalies. The author chooses a fixed *ut* on the note F, for his Tenor part (melody), calling the seventh of the scale *si*. When however he wishes to give an exercise in the key of *B flat*, he calls the *si* both ascending and descending, by the name *fa*, thus —



sol la fa ut fa la sol, &c.

But the Bass part receives still more remarkable treatment. An exercise practically in the key of C minor is given, with the following extraordinary solfaing —

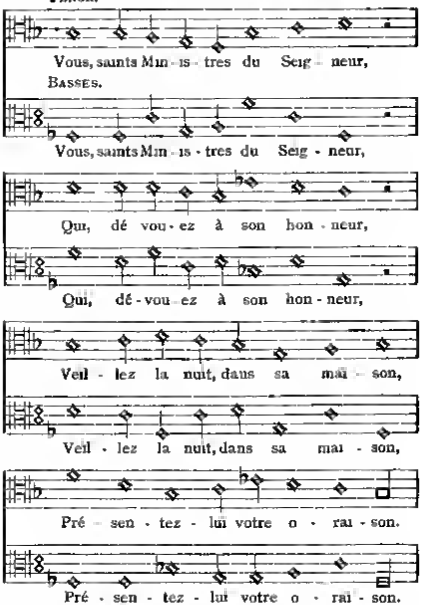


sol fa sol re mi re ut fa mi ut re sol.

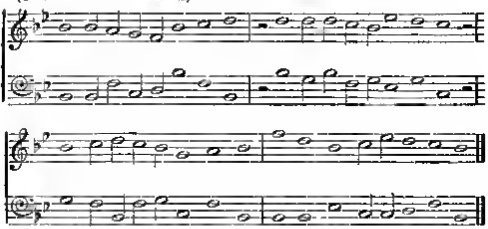
The above is, as far as I know, outside the pale of any known system. Calling the note *A flat* in the key of C minor *mi*, because he has assumed a fixed *ut* reckoning from *F* can only be looked upon as a piece of ingenious wilfulness

Nevertheless, the writer must have been a good musician, as proved by the excellence of his two-part writing.

I give a specimen it is Ps cxxxiv., the tune of which, as you know, became our Old 100th. The bass part is worth examination, it is very bold, and forms a most satisfactory harmony. It should be noticed that the art of dividing the words into syllables had not yet been attempted in Psalters.



(The above transcribed.)



Considering how slightly the Reformation influenced the general masses of the Italian people, it is not a matter of surprise that so few Italian metrical Psalters exist. In the earliest of those that were issued, no Instructions are given. But a "Breve Introduzione al Canto Fermo" in the form of question and answer is found in "Li cl. sacri salmi di Davide (&c) Tradotti ed accomodati alle melodie di A. Lobvasser da Andrea G. Planta. M.LC. In Strada nella Stamporia di Giovanni Jannetto 1740 (8vo)." In this there still remains a wish to cling to hexachordal systems, but they have to be politely bowed out, *e g.*—

"4. Quanti e quali son le note?

Propriamente son 6. *Ut. Re. Mi. Fa. Sol. La.*
Ma ordinariamente si usa 8. *Ut. Re. Mi. Fa. Sol. La. Bi. Ut.*"

After instruction in notes, time, rests, and keys, a table of exercises in intervals is given. A foot-note at the end of the Introduction is interesting as showing that the question as to whether the melody should be placed in the Tenor part or the Treble was still unsettled.

"☞ La voce ordinaria del Coro è il Tenore, ma quando v'è posto questo segno d'una mano, si cangiano le voci, ed in vece del Tenore si canta il Discanto." In our own country the Psalm-books of this period were by no means uniform in this respect, and the true position of the melody led to disputes of a very warm kind. The music is in four parts, printed separately, two on the *verso*, two on the *recto*.

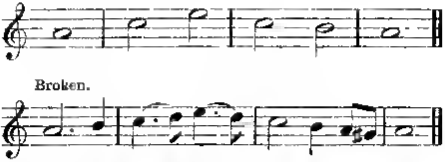
In the early Scotch Psalters no instructions in the rudiments of music were given. Such prefaces do not appear till the first half of the eighteenth century, they are not therefore of any special interest But in England at this same period an extraordinary number of Psalm books of all sorts and kinds came into existence, it is no exaggeration to say that during this century they appeared by hundreds. They generally contained only "elegant extracts" from the Psalms, but it was fashionable to prefix Instructions which gradually grew into long Treatises containing a vast amount of matter of no use whatever to the ordinary psalm-singer. Many favour us with a history of music from the days of Jubal to David, quotations from the early fathers, and not only an explanation of notation, time, and keys, but rules of harmony, counterpoint, canon, sometimes winding up with a Dictionary of musical terms, not one of which can be discovered in the music of the book itself!

That conceited old pedant William Tans'ur, in his "Harmony of Zion" (1736), adds to all the above, "a Mathematical Demonstration of the Nature of Sound"! "General rules for the composition of two, three, four, five, six, seven,

and eight musical parts." "General rules for tuning the Harpischord." Why all this? But we now also find amongst the subjects thought necessary to be mastered by those who wished to join in the singing in church, one which tells its own sad story; I allude to musical graces. John Arnold's "Compleat Psalmist," published in 1750, contains besides the usual useless mass of talk, a chapter on "the several Graces used in music." In order that there should be no mistake as to these graces being intended for vocal, and not instrumental use, he says: "The first and most principal Grace necessary to be learned is the Trill, or Shake, that is, to move or shake your voice distinctly on one syllable the distance of a Whole Tone":—

The author continues: "The Trill ought to be used on all descending prick'd notes, and always before a Close, also on all descending sharp'd notes and on all descending Semitones, but none shorter than Crotchets."

Imagine the horrible result if this Direction were carried out by a congregation! He also says: "Another Grace in Music is called the Grace of Transition, that is, to slur or break the Note, to sweeten the Roughness of a Leap; of which see the following example":—



These remarks are neither new nor interesting in themselves, but have a serious import when applied to psalm-singing. The constant appearance of Graces in these later Instructions proves the universality of bad taste. They are inculcated in "David's Harp well tuned," 1753, and more elaborately in "Divine Melody," 1758, in which eight kinds of Graces are enumerated and explained.

We are all familiar with the result. The fine old tunes of previous generations were either discarded altogether or so larded with graces as to be hardly recognizable. A vast literature of commonplace florid melodies sprang up; secular music of many kinds, especially glees, was adapted to the Psalms; a considerable number of tunes consisted of *soli* parts followed by only the last line *tutti;* and a taste for repeating the words developed itself to a remarkable extent. These vicious inroads on pure psalmody resulted eventually in robbing the congregation of all share in the singing, and the establishment of the West gallery quartet of voices. And towards the close of the century, instead of finding a few Hymns in the Psalm-books, we begin to find a few Psalms in veritable Hymn-books.*

My task is now nearing its close. You have with me peered into the archives of three centuries, and in addition to the many interesting details of the practice of the art of music disclosed to us by these Introductions and Prefaces, we find displayed before us the broad fact that whereas in the infancy of metrical Psalm singing, worshippers were directed to learn the Guidonian system "back and forward, upward and downward" if they wished to take their proper part in the holy song, in the latter days they were told that in order to do so, they must learn *Eight kinds of Graces!* What a change! and what a powerful light this throws on the story of the Psalm tune! We began this evening to trace the steps taken for its nurture almost from its birth, we have passed along the path of its healthy existence, and at the last we watch it, diseased and dying.

The eternal succession of creation, existence, and dissolution, binds its implacable chain round forms of Art, just as it does around all that *is*, either in being, or conception. Yet we must not forget that this inevitable and relentless dissolution is itself providing matter out of which new creations spring, though only to rush into the whirl of short-lived existence. But what a bright and hopeful thought it is for the worker in art, that all which glides off the shore of the present into the dark unfathomable ocean of the future, is being dissolved into its nobler and purer elements, as being more worthy of a new organization, a new life, on the marge of the everlasting, illimitable, circle. Yet it is impossible to reflect on the decadence of Psalmody without regretting that it did not die a more dignified death. Nevertheless, these apparently worthless remains, nay, we might almost say, this foul and revolting residuum of once-pure Psalmody was soon to be called into new life by the stirring, vivifying

* Take, for example, the two deeply interesting Wesleyan books "Sacred Melody" (? 1761) and "Sacred Harmony" (? 1789).

words of evangelisers, and from it was destined to burst forth and blossom that beautiful type of warm-hearted lyric poem and sweet devotional melody, which, happily wedded together, have raised a ladder on which thousands have climbed and are now climbing from this poor earth to higher realms of thought. Go into any building where are gathered together those who profess and call themselves Christians, and the swelling, mighty volume of sound will tell you, in no uncertain way, that dissolution has been followed by re-creation, the new has indeed come. Yet the old has not been entirely lost to us, for we find ourselves now and again re-joining our ancestors in one of their much cherished metrical psalms and stately tunes; and we rejoice thus to record our gratitude to those early reformers who in times of trouble and distress, and hampered by a network of difficulties and dangers, left us a noble example, and many a priceless jewel for the church's store of treasures.

DISCUSSION.

The Chairman.—I think if anything justifies the existence of this Society it is such a remarkable paper as we have listened to to-night, and I congratulate you that on this occasion, when we have elected so many new members, we should have heard a paper read by our President of such immense antiquarian knowledge and research. We must congratulate ourselves that the President has the time and the opportunity and the inclination to do such work. No one can perform a more valuable work for the musical art of this country, and I am sure we hope Sir John will be spared for many years in the repose he has so well earned. For the musical youth of this country who have little leisure for research of this kind, these papers are of enormous value, for think what the composition of this extraordinary history must have meant in time and labour. As far as I am concerned, it has taught me much. It has made some matters perfectly plain to me. With regard to the corruption of tunes, one is very pleased to find it came from a French source. I am glad it was not from an English or a German source. It is the light French work that we admire so much in flippant finery, but which is not well grafted on to the music of the church. I was very glad to hear those admirable closing words. I think it is very important, although we have swept away the frippery of French finery, not to sweep away the modern beauty of some of our tunes. I am sure our President has set a good example in the tunes he has

lately published and the excellent preface he has written, which I hope you will all read. I know there is an impression that we should have tunes in the church only of a dreary and dry description. I think we have an argument in the preface Sir John has written to his own tunes. The reason why these people published these prefaces of which we have heard seems to me possibly the same as the reason why we publish in our anthem books a long account of all the composers. I think it is that the people who do not care to listen to the sermon may while away their time by reading them, and I should be very sorry to see them abandoned. At Westminster I find many of the inhabitants of the stalls given to reading all about those musicians whose music they hear. Just as Mr. Pepys also, you will remember, enjoyed himself in church too with his perspective glasses, I have no doubt he would have read one of those terrible prefaces—probably he did. I have only to ask that you will show your appreciation of this paper and the historical knowledge Sir John has displayed in it.

The vote of thanks was passed unanimously.

Dr. CUMMINGS.—There is no doubt that this hexachord use and the change of the clefs and figures came from the recollection of the old service books, where they had only four lines and were perpetually obliged to change the clef. Doubtless that was the cause of this; they could not get rid of the feeling which hung about them. There was one other interesting point I had noted. I have a copy of our National Anthem, "God save the King," printed certainly in 1745 or 1746, in four parts, with the melody still in the tenor. One other fact I would like to emphasise, fearing we may go away and forget or misquote some remarks of our chairman: it is that these distortions and ornamentations belong to the eighteenth and not to the previous centuries—at least, in England.

Sir JOHN STAINER.—The French I quoted as the earliest instance in which people were told to do it; but we cannot tell what may have been done before that.

Dr. CUMMINGS.—Pepys probably wanted to introduce it into the tune which he wrote but did not compose, "Gaze not on swans."

Mr. ARTHUR M. FOX.—May I suggest that the eighteen or twenty a minute includes the time taken between respirations? When your lungs are at rest you will find there are several seconds between the inspiration and the next expiration. You will find it comes to about sixty or seventy a minute.

The CHAIRMAN.—But are we supposed to make a pause at the end of each breath?

Sir JOHN STAINER.—I am very much obliged to the gentlemen who have spoken. There is so very much to be learnt

about this. This is such an immensely long paper that I could not read it all. It seems to be absolutely a fallow field, and in important books like dictionaries of hymnology you will find very little, if any, information about these musical introductions. I have a list here of some hundreds of books that I have examined. When you do find something it is almost always interesting. But I am quite certain that any other hearers than "harmonical brethren" would have got up and walked away before I could have got to the end of this lengthy discourse.

DECEMBER 11, 1900

W. G. McNAUGHT, ESQ., MUS. DOC.,

IN THE CHAIR

THE TEACHINGS OF HARMONY AS A BASIS OF EAR TRAINING.

BY FRANK J. SAWYER, D MUS., OXON

IN commencing a paper the writer frequently feels it a duty to begin with an apology for introducing such a subject. In the present case I feel that no apology whatever is needed, for to those interested in the teaching of music, the training of the ear of their pupils is a subject which is rapidly becoming one of the greatest importance It is still in its infancy, but to the large number of conscientious teachers it is presenting itself with an ever-increasing force. We have been at great pains in England to secure that the rudiments of music shall be taught intelligently to the young pupil. Every scheme of examination in practical, as well as in theoretical, music has insisted on all candidates properly understanding the basis of the art. How greatly the musical perception and intelligence of the average pupil has improved by this means, anyone may see who will but compare a musical schoolgirl of twenty years ago with one of to-day.

But we are, if we are true to our art, always trying for further progress, and thus it has become apparent that in our endeavours to teach the rudiments, we have done so too much from the theoretical standpoint only, and have not combined with it the practical side

The child is taught that a certain shaped note is called a half note or minim, while another shaped note is called a quarter note or crotchet, and that the latter is half the length of the former.

This is the theoretical side But do we at once try to train the practical side by singing or playing a passage and asking our little pupil to tell us which were the half-notes and which were the quarter-notes? In other words, do we train the child's ear to recognise the *musical fact* which was represented by the *musical symbol?*

Again, we teach our pupils major scales, minor scales, and intervals, *on paper*. They can, perhaps, tell you all about them when they *see them printed*, but the training of the mind's eye by means of the ear we have hitherto neglected.

We are now beginning to recognize that it is *not* sufficient if our pupils can show us a major third on paper! They must be able to tell it when heard. Hence, in this desire on the part of teachers to train their pupils as well as they possibly can, the subject of ear training—*i.e.*, the development of the power of hearing to analyse sounds, has become of more and more importance.

Considering, therefore, the great bearing that it has on the further progress of our musical art, I feel no apology is needed as a preface to any attempt to further aid the study of ear training.

As preparatory, it may not be amiss to briefly notice the history of the subject in England. Practically for the last fifty years, until a few years ago, it has been only taught in connection with class singing, and in class singing only by those who taught on tonic sol fa principles. Grasping the great doctrine of good teaching—"the fact before the sign that represents it"—the late Mr. Curwen sought to find qualities pertaining to each scale degree, by which the singer might recognise on what step of the ladder of the major scale he was

Hence the tonic was called the Strong or firm note.
The dominant, the Grand or bright note.
The mediant, the Steady or calm note.
The leading note was the Piercing tone
The supertonic, the Rousing tone
The submediant, the Sad or weeping note.
The subdominant, the Desolate tone

By the perception of these peculiarities, the child's mind was taught to recognise and name each degree of the major scale.

While we may be tempted to smile, especially those of us who imperfectly realise as yet that the relationship of every note to its tonic is the basis of all music, these first attempts at locating the mental effects of each degree have proved an important beginning to the development of ear training.

In many of them there is the germ of truth, even if in others there is a superabundance of picturesqueness.

It is hardly necessary to do more than mention the fact that in sight-singing teaching, tonal relationship has far outgrown its early connection with the tonic sol-fa, and has practically become the recognised method of teaching the young singer to read music.

Turning to the history of ear training in *instrumental* music, until a few years ago it was almost a blank in England.

In the old Society of Arts' Examination in practical music a test was given, but that was in *absolute* pitch. Notes were struck having no connection with each other, and the young candidate was required to tell the absolute pitch of these sounds.

Such tests were, of course, a farce, because the pupil was either endowed by nature with the gift of absolute pitch and so could not help answering rightly, or nature had not given her the gift and in such early years she had not been able to acquire it. Special marks might therefore just as well have been awarded for the possession of blue eyes.

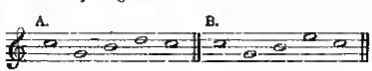
The pioneers of the subject of ear training seem to have been the professors of the dictation classes at the Royal College of Music and at the Royal Academy. Gradually an interest in the subject was aroused, and the authorities responsible for the examinations in connection with Trinity College and the Incorporated Society of Musicians decided to require tests in ear training from *all candidates*.

At the annual Conference of the latter body—the Incorporated Society of Musicians—at Plymouth, in January, 1899, a most important advance on the subject was made in an admirable paper on "The Training of the Ear," by Dr. Shinn. It is not too much to say that in the eloquent and forcible address that he gave, he did more to drive into us the immense importance of his subject—not in the realm of sight-singing alone, but in *all* musical study—than has anything that has taken place.

Following on this excellent paper Dr. Shinn produced last year the first part of a text-book on the subject.

Such is the brief history of ear training up to the present time.

In the further development of the subject it has occurred to me that it may not be inadvisable to approach it from an absolutely fresh point of view. While the singer treats it from the melodic standpoint, our piano pupils will approach it from a harmonic. Again, it has been said that no ear receives a melody without instinctively supplying a simple harmony. This is certainly true to some extent, because those who examine in sight singing know that passages in which the singer's mind cannot apply a natural chord progression are always the more difficult. For instance, a singer will readily sing—



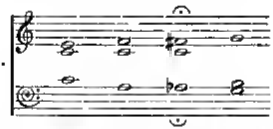
C, G, B, *D*, C, because the ear accepts the dominant harmony of G, B, D. A singer will find C, G, B, *E*, C more difficult, since it implies a stranger chord, G, B, E, the major thirteenth.

Apart from such interesting considerations as these, it must be palpable to all that harmony is the essential factor in the music of the present day as we meet with it in our everyday work.

Let us therefore subject the teachings of harmony, as it appeals to the ear, to a more critical examination. We will begin with discords, as being those which strike the ear most forcibly in desiring definite progression.

If I play the progression at No. 1—

No. 1.

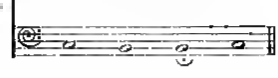


and pause on the third chord, the ear immediately demands that the F sharp shall ascend while the A flat descends.

The chord A flat, C, F sharp is the augmented sixth on the flattened sixth of the scale. We may therefore say that the mental effect, that is, the effect produced on the mind by the augmented sixth, is that the extreme notes shall move away from one another by diatonic semitones. Although other progressions are *possible*, yet to the ear this is the most *natural*.

Examine the progression No. 2, first on paper, and then in actual fact, pausing on the third chord:—

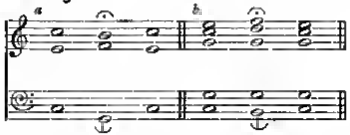
No. 2.



What does the ear demand? The bass must ascend, the A flat and the F must descend. When, therefore, we strike this chord of the diminished seventh the ear receives a definite mental picture, and instinctively requires that these notes should move as given above.

Descending from these more extreme discords, let us take the milder discord of the dominant seventh, as given in progression No. 3 :—

No. 3



Pausing on the second chord, the ear at once asks that the treble shall ascend, the alto descend, and the bass return to the tonic. Even if we invert the chord and put it in five parts as at No. 3, *b*, still the same mental effect is apparent; the subdominant—the F in the melody—falling, the leading note—the B in the bass—rising, and the dominant seventh being most naturally followed, according to the teaching of the ear, by the tonic triad. This, therefore, is its mental effect.

From this study of discords—both extreme and mild—we may deduce the fact that the ear makes of each a definite picture, and that picture of each is in these cases dependent on the resolution to something which will produce on the mind a state of rest.

This constant striving after a point of rest is a feature in our music, the importance of which we hardly at first realise. A German writer has said that the desire of contrast is the underlying principle of all music, and he even traces in the simple progression of tonic, dominant, tonic (No. 4), the germ of musical form. Thus, the tonic chord, which in itself is at first satisfying to the ear, at length begins to pall, and we ask for something to contrast with it, to which the dominant chord responds, affording exactly the counterpart by its brightness and moving power. But this again brings about in the mind a desire for repose, which is satisfied by the return of the tonic. The same writer goes on to show that the early song form is but an extension of this idea of "rest—motion—rest." The first section is in the tonic, the contrasting section is in the dominant or other key, from which the ear demands we shall return, and repeat the first section, ending on the tonic.

This desire to return to a state of rest is therefore a salient feature in harmony, and we shall find that it will afford us most useful aid.

It is, in the first place, necessary to determine what are the points of rest to which all chords seem striving. They are to be found in the notes of the tonic triad itself. On these, and on no others in the scale will the ear rest satisfied. The

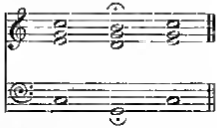
typical feature of the tonic chord is the feeling of perfect completion which it contains. It is this feature which we regard as the mental effect of the chord. It is true that it has various degrees of completion, according to the position of the chord. Thus, the tonic chord, with root in the bass and an octave of the root in the treble, gives the best idea of rest, while the weakest effect of rest is apparent in the second inversion of the tonic chord, where the interval of the fourth with the bass makes itself felt as a discord demanding further progression.

Not only is the tonic chord satisfactory to the ear as a point of rest, but melodically it will be found that each of the notes of which it consists will also, in a greater or less degree, satisfy the ear and demand no further progression. Thus, the tonic most fully arouses this feeling and seems to spread around itself a home-like feeling or sensation of finality. In a similar manner, though in a lesser degree, the fifth of the tonic chord—the dominant of the scale—will satisfy us, and ask for no further motion; while the third of the chord—the mediant of the scale—also contents us, and gives the ear such a feeling of rest that no further progression is compulsory.

Thus we see that while in harmony it is the tonic chord which is the central power of repose in the scale, that power is so strong in the chord that its force is extended to each note of which the chord consists.

Having sounded our tonic chord, let us now sound the dominant triad immediately after it:—

No. 4.



In this conjunction what have we found? Is the ear satisfied with this second chord? Is it at rest? No; assuredly not. The feeling of rest and repose has entirely gone, and we recognise in the dominant chord that a bright expectancy has been awakened of further motion. This bright feeling of further progression is typical of the dominant chord even without the seventh of the chord being added. It may be called the "mental effect" of the chord on the fifth degree.

The position of the chords in No. 4 is such that the tonic in the melody falls to the leading-note, and the primary sensation produced in the mind is that this "leading-note" should, as its name implies, "lead up" to the tonic. Even

supposing there is someone in this room who has never heard of notes of the scale producing effects on the mind, yet I suppose no one present will deny the desire or tendency of the leading-note to ascend to the tonic. I have only met one such person, and it may not be amiss to digress for a moment to consider this exceptional case. Those who possess the gift of absolute pitch (and I do not think they are 1 in 10,000 of the population) are often either entirely unable, or else only partially able, to understand how music appeals to us who, not having the gift of absolute pitch, hear and accept our music by *relative* pitch.

To such people, tonal relationship—that is, the relationship of every note to its tonic—appeals only very slightly. Thus, if the possessor of absolute pitch listen to a symphony in C he will hear the second subject in G. They will be to him two absolute and separate keys. But to those of us who have *not* the gift of absolute pitch, we should hear the principal subject given out in the tonic, and, when the second subject arrived, we should hear that it was in the dominant of the original key, and thus the inter-relationship of the two sections will be established. In fact, to quote the words used recently by Mr. George Langley, "the whole appreciation of the centre of pitch is (after the first note of a composition has been heard) merely one of relativity."

To the possessor of absolute pitch it is not always so, and, to such, a note will sometimes appeal so fully as a certain definite sound at one definite pitch, that its tonal relationship will be entirely obliterated.

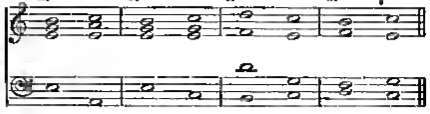
It was in this way that the musical student in question perceived sound. I struck the leading note as part of the dominant triad, but the student honestly assured me that she could not perceive that it had any tendency to ascend, and that she had always wondered why it was called the "leading-note."

In conclusion of this little parenthesis, this fully explains the difficulty that teachers *with* absolute pitch have in teaching ear training to pupils without it.

Returning to Example No. 4, the leading-note may therefore be taken as the note having the strongest of mental effects in its tendency to lead up to the tonic.

This is the case in all triads in the scale which contain the leading-note:—

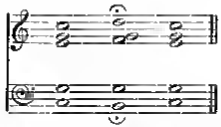
No 5



The mediant triad is most satisfactorily followed by one which admits of the leading-note ascending, either, as at No. 5, *a*, to the submediant chord, or, as at No. 5, *b*, to the tonic chord. In the diminished triad, either in uninverted form (as at *c*) or inverted form (as a *d*), the same desire of the leading-note to ascend is palpably clear.

Let us now place the tonic and dominant chords in another position, in order to discover what harmony teaches us about the supertonic of the scale. Striking the first and second chords of No. 6—

No. 6



and, pausing on the second, we instinctively feel a desire that the second degree may fall again and the tonic chord be resumed. It is true the second degree might ascend to the mediant, but that is not what the ear regards as the most *natural* progression, and for this reason: were the supertonic to rise to the mediant it would reach a note which is not so strong a point of rest as is the tonic, and hence the ear leads us downwards. That this tendency of the second degree to fall to the tonic is, melodically, very marked, I presume few would dispute. It is the penultimate note of every *canto fermo* in counterpoint, and it is therefore self-evident that the ancient writers considered "supertonic, tonic" as in their time the natural termination of every melody. On turning to the first twelve tunes in Macfarren's "Old English Ditties," ten out of the twelve thus end. Since, therefore, the striving after a point of rest seems inherent in every chord other than the tonic, which itself *is* the point of rest, we may regard the two notes of the dominant chord as desiring to seek repose in passing to the tonic.

The mental picture of the leading-note is to *ascend* to the tonic.

The mental picture of the supertonic is to *fall* to the tonic.

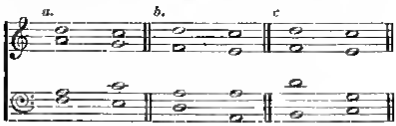
And what does the octave of the dominant itself do in this progression?

The dominant being itself a point of rest it remains stationary. Returning for a moment to No. 5, *a* and *b*, we find that in the progressions of the mediant triad the same thing was apparent: the octave of the mediant, being itself a point of rest, remains stationary. Do not misunderstand my

meaning. I am far from saying that the teachings of harmony *always* show that the tonic, the dominant, and the mediant *always* remain stationary. I would simply say, taking the simplest progressions of the primary and the chief of the secondary triads this is so.

The tendency of the supertonic to fall is also found in other chords besides the dominant triad—

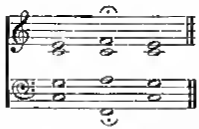
No. 7.



Thus, in No. 7, *a* and *b*, as octave of the root in the supertonic chord itself, or at *c*, as third of the diminished triad, it seems natural to thus progress.

Let us now turn to the subdominant triad and place it to follow the tonic triad as at No. 8, pausing on the second chord—

No. 8



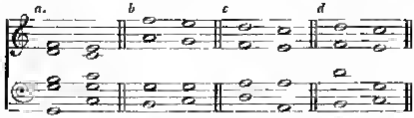
It is necessary that we first notice the peculiar effect of the chord itself. It does not possess that firm stability that belongs to the tonic chord, nor does it produce that bright effect of motion that we found to be characteristic of the dominant chord.

Its effect is one of dulness, or, as suggested to me by Sir Hubert Parry, a "clouded" effect. In this it seems the antithesis of the dominant, and hence the three primary triads present to us three clear contrasts: the tonic, stability and rest; the dominant, brightness and motion; the subdominant, dulness or cloud. It was this clouded effect of the subdominant, both as chord and as scale degree, which was evidently felt by the late Mr. Curwen, when he wrote as the mental effect of "fah" that it was "desolate or awe-inspiring."

As I said before, even if we smile at this ultra-picturesque description yet there is a germ of truth in it.

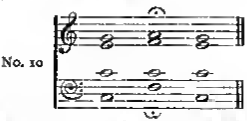
The general effect of the subdominant triad we may thus take to be its dulness; and this is also apparent in the melodic nature of the fourth degree of the scale.

But harmony teaches us more than this. Let us sound again No. 8 pausing on the second chord. Is the ear at rest? No! it is not, but it feels instinctively that the simplest progression would be to follow the subdominant chord by the tonic, the fourth degree thus falling to the third. Let us examine other simple chord progressions in which the subdominant note occurs—



In No. 9, *a*, we have the dominant seventh in which the fourth degree is that discordant seventh, and therefore desires resolution by falling to the third. Wherever, in the dominant series of discords, the original seventh (the subdominant) is present, it will thus always want to descend. Thus in No. 9, *b*, we have the major ninth, where the F desires to progress downwards. At No 9, *d*, we have the diminished triad, which is here of course only an incomplete form of a dominant seventh with the root omitted. Here also the subdominant descends. Even in No. 9, *c*, where F occurs as third of the supertonic triad, it still wants to descend.

Hence we may say that harmony teaches us that the effect of the fourth degree on the mind is "dulness," and that it has a desire or tendency to fall to the third degree. We have now to examine the other note of the subdominant chord—viz., the submediant—

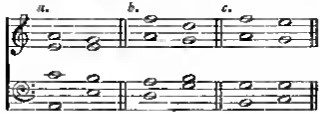


Let us again hear the tonic chord, this time with the fifth degree at the top, and follow it by the sub-dominant chord with the sixth degree of the scale in the treble (No. 10), pausing on the second chord.

The ear is again *not at rest*, but desires that the tonic chord may be resumed as a point of rest, the sixth degree thus falling to the fifth of the scale.

We have now to examine other simple progressions to see if they substantiate this tendency of the sixth degree to fall—

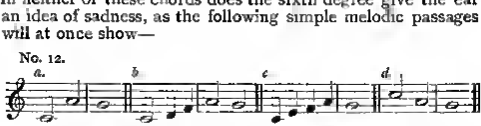
No 11.



In No. 11, *a*, we find that the triad of the sixth degree passes naturally to that on the mediant. The bass here rises a fifth; there is one note in common between the chords; it is the most natural progression from the sixth degree, *and*, in the melody, that degree *falls* to the fifth. In the second progression, at *b*, the sixth degree appears as the fifth of the minor triad on the supertonic, and that chord is followed in its most natural way by the dominant chord—in fact, we may regard this as the most usual use of the supertonic triad. Here again the sixth degree of the scale falls to the fifth, passing thus to a point of rest. On other occasions in the same progression we find the sixth degree passing up through the leading-note to find its ultimate goal in the tonic.

We may therefore rightly say that the sixth degree of the scale has a *general* tendency to fall to the dominant. As regards a distinct mental effect to the sixth degree we may seek in vain. It has been called in Mr. Curwen's description the "sad note." This definition is clearly based on the fact that the relative minor scale begins on the sixth degree of the major, and, as the minor mode is more melancholy than the major mode, the degree on which it starts—the sixth degree of the major—was called the "sad note." But this is illogical since we are treating of the sixth in its relationship to its tonic, and not when it has become itself the new tonic of a minor scale. Again, harmony teaches us that the sixth degree is far more often used *not* as part of the relative minor chord than *as* part of it, since it is the third of the subdominant chord and the fifth of the supertonic, and in neither of these chords does the sixth degree give the ear an idea of sadness, as the following simple melodic passages will at once show—

No. 12.



In No. 12, *a*, *c*, and *d*, the note A is naturally harmonised by the ear with the primary triad of the subdominant. At *b*,

the progression shows the A in this example as part of the supertonic triad. In none of these cases does the sixth degree produce a "sad" effect on the mind.

Gathering together the results of our examination of the movements of scale degrees in the simplest harmonic progressions, we find that we have evolved an easy way for the young beginner in ear training by which each degree may be recognised.

Firstly, the degrees of the scale prove to be of two kinds in the effects that they produce on the mind: one class, which have been called the "strong notes," satisfy the ear, and consist of the tonic, which gives the most perfect idea of conclusion and rest; the dominant, which, in comparison with the tonic, sounds clear and bright, and the mediant, which sounds peaceful and calm. On these three scale-degrees, and on these only, the ear will rest satisfied and require no further progression. They are the three "points of rest" in the scale.

The other degrees are incomplete on the ear, and *require* further progression, and have for this reason been called the "weak notes."

Of these four, the leading-note, as its name implies, has a desire, or tendency, to lead up to the tonic, while the supertonic has a distinct tendency to *fall* to the tonic; the subdominant appeals to the ear by its dull or clouded effect and its desire to fall to the mediant, while the sixth degree—a rather colourless note—desires to fall to the dominant.

These deductions we are clearly entitled to make from the foregoing examination of simple harmonic progressions. I would, however, most emphatically ask that no one present should imagine that these tendencies and mental effects are *always* present. They are not, and no one would be so foolish as to say that they were. But this we can, and do say, that basing our suggestions on simple chord progressions, we have here a set of generalisations which will aid the young pianist or violinist to recognise and name the single degrees of the major scale.

To illustrate my remarks, I have brought with me a young pupil of about 14 years of age who has had *one hour's* total teaching in ear training, divided into twelve little lessons of five minutes each. I believe you will find her able to tell you accurately any degree in the chromatic scale that you may strike (having first given her the tonic) and also that she will be able to name every interval sounded between the tonic and any degree of the chromatic scale. And this is after *one hour's* teaching by means of the harmonic effects of the notes!

(Illustration with Miss Blakiston.)

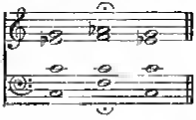
Extending our examination of harmony to the chief chords of the minor mode we, of course, take the tonic minor, for if the essence of all music is the relationship which exists between the tonic, or key-note, and the various degrees of the scale, that essence is as essential in a minor as in a major, and therefore C minor and C major must be compared —not C major and A minor.

Comparing C major with the harmonic form of C minor, we find only two notes different—viz., E flat, the minor third of the scale, and A flat, the minor sixth of the scale. Tracing the origin of the scale in the primary triads of the key we find the tonic a minor chord, having the minor third as its middle note, this minor third imparting to the whole chord a more sad or melancholy effect than had the major chord. The key-note and the dominant retain exactly their former character, the one of finality, the other of brightness.

The dominant triad remains as in the major, and the leading-note still desires to rise, and the supertonic to fall.

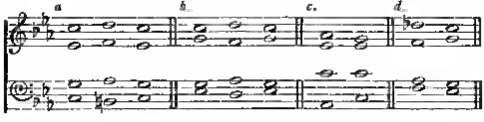
The subdominant triad contains the flattened sixth degree, being F, A flat, C. The subdominant F retains its character of dulness and its desire to fall. Comparing the minor sixth with the major sixth, we find that the desire to fall to the fifth is greatly intensified in the minor sixth—

No. 13.



This imperative tendency of the flattened sixth to fall is borne out in every chord in the minor mode which contains that note—

No. 14.



In No. 14, *a*, *b*, *c*, *d*, we find this true, nor is it difficult to account for it, since in the majority of cases the flattened sixth degree may be traced to its derivation from the dominant root, from which it is the minor ninth. Hence its strong feeling of a desire to fall in resolution.

But three other notes remain to complete the chromatic scale of harmony—viz., D flat, F sharp, and B flat. Of these the flattened seventh is easily recognised by the ear, since it builds with the tonic a minor seventh, desiring to fall, and so affording a strong contrast to the major seventh, which desired to rise.

The augmented fourth (F sharp) is seized on by the ear as being the leading-note to the key of the dominant, and thus, in its desire to rise, it contrasts itself with the diatonic fourth degree, which, with its dull effect, desires to fall.

Lastly, the flattened second degree (D flat), which harmony shows us is so often used as part of the Neapolitan sixth (as shown in No. 14, *d*), desires, though in a more intensified manner than did the second degree, to fall to the tonic.

We have now, by the teachings of harmony, been able to formulate a method by which our young pupils can tell us any degree of the chromatic scale which we may strike, always provided the tonic is first given.

Since the method is based entirely on the relationship of each note to its tonic, the pupil will, when once the plan has been mastered, be able as easily to work in one major key as in another.

(Illustration in the notes of the chromatic scale by Miss Blakiston.)

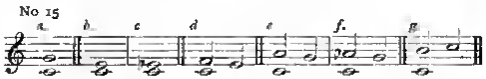
We are of course to-day only dealing with the *very* elementary work of ear training, and therefore, in conclusion, I shall very briefly show how the elements of harmony enable the pupil to tell intervals. These we will divide into two classes: those of which the tonic *is* the lower note, and secondly, those intervals in which it is *not* the lower note.

In preface to this portion of the work we may well remember that if it was true that the ear supplied harmonies of a simple nature to the single notes of every melodic passage, it is doubly true that the ear receives every simultaneous sounding of two notes—*i.e.*, every interval, as *part of a chord*. Therefore, if harmony has proved to be a basis of recognition by the ear of single notes, far more so will it be in the detection of intervals.

In the majority of cases the old mental effects which we found pertaining to the notes as scale degrees will be found still existing in intervals; but it must also be noticed that some intervals have in themselves so strongly a special harmonic effect that the melodic effect is overridden. Thus any minor seventh, as a part of a chord, has so marked a harmonic effect in the desire of the upper note to resolve downwards, that it will overcome the melodic effect of the upper note. Thus, seconds, sevenths, and perfect fifths often have harmonic tendencies, which supersede the melodic tendencies of the various notes of which they consist. It will

be found, however, that in the majority of intervals this is *not* the case, and the old mental effects of the scale degrees will remain, and be of the greatest use in the determination of the interval.

Thus the perfect fifth between tonic and dominant is at once recognised by the bright mental effect of the fifth degree (No. 15, *a*)—



The major third (No. 15, *b*) still sounds calm and peaceful—in fact, I leave it to you to decide whether the third degree makes the interval calm, or whether the interval of the major third makes the degree calm! The minor third (No. 15, *c*) is sad and melancholy. The perfect fourth essentially desires the resolution of that fourth on to the third degree (No. 15, *d*). The major sixth (No. 15, *e*) desires to fall to the dominant, the minor sixth (No 15, *f*) imperatively demanding to do the same thing. Even in the interval of the major seventh (No. 15, *g*), the tendency of the leading-note to ascend is not completely overcome, but the ear seems to grasp the seventh degree as a retardation of the tonic.

Of the other intervals from the tonic, the influence of harmony will be more directly apparent. Thus in the minor second (No. 16, *a*) the ear demands the resolution of the lower note a whole tone downwards to resolve it on a consonance —the minor third. In the major second (No. 16, *b*) the lower note has a tendency to fall a semitone, and is less fierce in its discordancy than was the minor second. The augmented fourth (No. 16, *c*) the ear seizes on as creating a modulation to the dominant, and it recognises the interval because of the desire of the two notes to *move away* from each other by a degree. Lastly, in the minor seventh (No. 16, *d*) the teaching of harmony and the desire of the ear for resolution agree, and the interval is known by the tendency of the upper note to descend and of the lower note to rise a fourth.

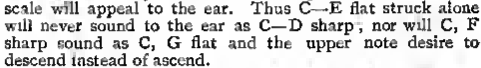
(Illustrations by Miss Blakiston.)

We have treated of the class of intervals arising between the tonic and the various notes of the harmonic chromatic scale. This scale, which ascends by flats with the solitary

exception of the sharpened fourth degree, is, as Sir Hubert Parry says in Grove's Dictionary, "obviously the most consistent," since it was "such accidentals as can occur in chromatic chords without changing the key in which the passage occurs." It is very interesting to note that the ear, that infallible judge in all matters musical, fully endorses this; for it is in this way that each of the degrees of the chromatic scale will appeal to the ear. Thus C—E flat struck alone will never sound to the ear as C—D sharp, nor will C, F sharp sound as C, G flat and the upper note desire to descend instead of ascend.

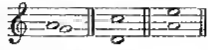
I must not trespass on your time in dealing fully with intervals of which the tonic is *not* the key-note. Briefly let me point out that in these, as was the case in the other class, frequently the mental effects of the scale degrees will still remain. This is the case in all intervals derived from the primary triads, as No. 17 will show:—

No 17.



In all these cases the ear can trace the notes of the intervals by their individual peculiarities. In other cases, the power of the harmonic effect of the interval will partially, if not entirely, override the more simple melodic effect of the scale degree. Thus, in No. 18—

No 18



each of the intervals has its own harmonic effect; but on hearing the tonic first the ear of the pupil will readily grasp some fact that will aid it, and thus by systematic practice every interval struck will be readily named. Further than this I must not go to night.

What has been the object of our researches? To try and evolve from the harmony which is constantly surrounding our little pianists and violinists some few salient facts—"generalisations," if you like to name them so—which can aid the young ear to analyse the sounds it is hearing. Thus, by utilising the brain, as well as the ear, a far more intelligent pupil will be produced, the acuteness of perception will be greatly enhanced, because the pupil will not only interpret *symbols* into *sounds*, but also—the great reflex side—will learn how to interpret *sounds* into *symbols*.

The quick and ready way in which any well-trained schoolboard boy will name in his sol-fa the sounds sung

to him must put many of us staff musicians to the blush. It need not do so, if we will take the matter up, and with our greater and more adequate knowledge of music will try to teach it on a rational plan. It is perfectly easy to do; in our desire to advance our pupils' musicianship it is demanded of us that we teach it them. Therefore, if in the very near future the great subject of ear training is not considered a *sine quâ non* for every young beginner when learning the *rudiments*, and for every student of harmony from the time he learns the *primary triads*, we have not done our duty to the great art of music which we profess to love and desire to serve.

DISCUSSION.

THE CHAIRMAN.—I am sure we are all much indebted to Dr. Sawyer for the very instructive lecture he has given us. He manages to put a great deal in a small compass, and I am sure you will all look forward to seeing this paper in print. I have always considered this subject as of supreme importance. I have had a great deal to do with it in the course of my life. For some thirty years ear training has been part of the musical work for every schoolmaster in the training college, and it is an essential feature of the Education Code under which some four or five millions of children have been plied with ear exercises throughout the country. Dr. Sawyer alluded to instrumentalists rather than the singer at large, and there undoubtedly he is right. The subject has been woefully neglected in these quarters It bids fair now, I think, to be taken up, and with such teachers as Dr. Sawyer and Dr. Shinn about, I hope a great reform will be accomplished. The supreme question in relation to your exercises always will be how to arrange the order of teaching. Many efforts have been made during the last century to devise plans of ear training. Some of them go upon an apparently high logical basis, but are really governed entirely by the form of the notation which is used; and so you may pick up a book on ear training in which everything seems to be arranged admirably, and yet the method fails miserably when it is applied to the average pupil. That is because it has been governed more by the form of the notation than by what I may call the psychological treatment of the subject. There is really no rational way of approaching ear training, except by finding how the average pupil works, and the average pupil, I am sure, does not work by absolute pitch. Dr. Sawyer has told you so, and with his great experience

and that of many others before us, we must conclude that we cannot base methods on the assumption that ordinary pupils can gain the sense of absolute pitch. There are two other courses open to us We may observe the interval as perfect fifth, perfect fourth, major third, &c., without regard to the tonic. As every piece of music may be said to present a set of intervals, this method may seem feasible. The perfect fourth certainly has a definite, somewhat ghastly effect; the perfect fifth is comparatively bright; the major third is sweet; and so on That was the plan adopted by some teachers It is not possible now to give anything like a history of the subject. I am sorry Dr. Sawyer did not notice Ritter's Musical Dictation, which was published in Novello's Music Primers in 1887. It represents an honest and hard working effort to bring the subject before the British musical public. But I am afraid that the public was not then in the mood to receive it Unfortunately, Ritter bases his plan too much on the observation of intervals He begins by asking the pupil to tell major seconds, minor seconds, and so on, and it looks very logical to take gradually larger and larger intervals till you get to the octave But though I think the book deserves attention for many things in it, I must say I do not like the principle on which it is based. You can observe intervals, I think, pretty well, and can teach pupils to observe them when they are struck together; but it is much more difficult to take them in melody. Many, I think, hear the mental effect of the scale degree and afterwards translate it into terms of intervals When C and E are struck together the memory is not called upon for the purposes of the comparison. It hears them both at once, just as when you see these two books together you have a clear idea of their relative size; but if I showed you one and a little while afterwards the other, it would not be so easy to decide I noticed that the young lady you have just heard first had the notes played as scale degrees and then she named the intervals—minor sevenths, &c. But the main reason why melodic intervals are found difficult to recognise directly is that scale degree effect occupies the mind and draws attention from specific interval effect. The third plan is to try to awaken this sense of tonic relationship That is the only plan that you can assume as possible on the part of the average pupil; and that, I am glad to see, is the plan which Dr. Sawyer has adopted and Dr. Shinn also, I believe, agrees. All music courses, no matter what their object, should include ear-training. If it is necessary for the training of children in elementary schools, it is necessary for our pianoforte pupils. I am sure we shall be very glad to hear other speakers; but, before I sit down, I should like to have the pleasure of proposing a very hearty vote of thanks to Dr. Sawyer.

Perhaps Dr. Shinn will second that, and take the opportunity of letting us know what he thinks on the matter.

Dr. SHINN.—I think I should be particularly ungrateful, both to Dr. Sawyer and to yourself, if I did not rise to thank you for your generous references to me. It was Sir Walter Parratt who first introduced the subject of ear training to me, and my book on musical memory is dedicated to him as a slight recognition of what he did for me in this direction. His classes at the Royal College of Music are largely devoted to musical dictation exercises. With regard to Dr. Sawyer's method, I may say that very largely it is my own—at least, so far as regards the treatment of the tonic as the basis. At the same time I do not agree with everything he said. I am afraid there is not time to do justice to the paper in this respect, because we could very well go on discussing it all night. With reference to the tendency of the supertonic to fall, we find this note many times where it is not the last note but one of a melody and in such cases it does not suggest falling to the tonic; and I do not think the effect of the supertonic is necessarily to suggest a fall to the tonic as Dr. Sawyer seemed to think. Then in Example 5, *a*, he played only those two chords. I do not admit that the progession is in the key of C as it stands. The same holds with respect to 5, *b*. I do not mean to say that if he had prefixed the chord of C the effect would not have been as he represented it; but suppose he put the chord of C first, and then took the B down to A, I do not think it would be an unnatural progression. Even if you begin with the chord of C and then harmonise the leading note with the dominant chord and take it down to A, I do not think it is at all unnatural. You speak of how we may base our teaching on more than one principle. If I might venture to speak on the subject, I think it is largely a matter of mental development. The historical development of music has been the gradual gaining of control by the human mind over the sensations of sound. The human mind developing through centuries has continually endeavoured to discover fresh combinations of sound, and as these new combinations came to the race, so, to a very large extent, they must come to the individual mind. The study of ear training is a vital part of the study of harmony. To make harmony the basis of ear training is somewhat analogous to taking grammar as the basis for the study of the meaning of words. You do not go to grammar to explain the meaning of a word; and I do not think you ought to go to harmony to explain the sound of a chord. Unless you take ear training as the basis of harmony, harmony is a non-musical subject. The two first examples strike me as illustrations of the influence of

environment. Dr. Sawyer said *A*, is more readily grasped than *B*. That is because we hear it very much oftener. It has occurred in music so frequently that the human mind and ear have got to the condition of accepting *A* more readily than *B*. If Spencer's theory of heredity is right—and many men of science believe in Spencer—the human mind through generations has been familiarised with particular combinations and progressions, and we have inherited a tendency to accept what our ancestors accepted more readily than what is novel and unfamiliar. I think that is the foundation of the whole thing. It seems going a long way off, but I believe that is really at the bottom of the subject. Harmony must be taught as we teach ear training. You must introduce your chords to the ear first of all and then you introduce them on paper. We owe a great deal to sol-faists for what they have done, and I say this the more readily because I am not a sol-faist. Dr. Sawyer spoke about the chromatic scale, and said we would never think of C—E flat as C—D sharp. I think that is a matter which will depend on the influence of our environment upon us. With regard to C going to F sharp, I should not agree with him. I do not think we hear an augmented fourth more often than a diminished fifth. With regard to G sharp, I admit that an augmented fifth is a rarer interval than a minor sixth. The whole basis of the question is what one's mind is used to listen to and what is familiar to one. In seconding this vote of thanks I am sure that we all feel that we owe a great debt of gratitude to Dr. Sawyer. The paper is not one to be discussed at a moment's notice, but it is a paper we should all read carefully and from which we should learn something. With regard to this subject of ear-training, we seem to be passing through the second of those three stages mentioned by Herbert Spencer. A few years ago we were unanimous in our ignorance; our present stage represents the differences of opinion of the inquiring, and many are coming forward to tell us what they think best. Then in the third stage we come to the unanimity of the wise. I hope we shall some day reach that happy condition.

The vote of thanks was then passed unanimously.

Mr. W. Harding Bonner.—One thing occurred to me while these illustrations were being given, and that is that two chords do not always mark a key. For instance, I heard No. 8 as clearly in the key of F. I think Dr. Sawyer should have played more chords in order to establish the key. I should always play five or six chords so that the pupil might have the key well established. The ambiguity is often heard in Tallis's Responses and similar passages in the Church services. I think Dr. Sawyer's plan is the right

one. We must begin with the very easy things. One of the critics, in reviewing Dr. Sawyer's new book, says that he thinks he goes too far in the subject of the mental effect of notes. Of course these things should be learnt in childhood; and if you commence at the beginning of musical knowledge you will find children will learn most easily from the scale effect. After they have thoroughly imbibed the mental effect of scale notes they can then go on to more difficult things; and there, I think, the study of interval comes in. The effect of chords depends very largely on the intervals contained in them; and in teaching chords it is always well to analyse those intervals. The different inversions have totally different effects, largely because of the different intervals introduced. The effect of interval is a strong point which we must not omit; but it is not wise to commence with it. Certainly the mental effect of the scale is the best way of training the ear at first. The question of the minor key we had better not go into. But the intervals of the minor scale certainly have a very different effect from those of the major. The effect of an interval, I agree, is not so obvious, because this effect of scale tone governs everything. This study is a most interesting one, and if care is taken in teaching children at the beginning, we find they can do a great deal more than we should expect from them. But later in life very little can be done, as a rule, unless pupils are gifted musically.

Dr. Sawyer.—I will not take more than a minute, because I think we have far too much encroached on the time of Mr. Rose, whom we are all looking forward to hearing. It is curious how we all look at the world from our own point of view. I looked at it from the point of view of staff musicians, which is the real musical world. Outside there is a small world who learn tonic sol-fa and know a little about the staff. Well, now, considering that not, perhaps, more than four or five per cent. of those children would ever learn the staff, the influence of that teaching is entirely lost when they leave the Board schools, whereas these children whom I have in view are all, or nearly all, familiar with the staff already. I entirely agree with Dr. McNaught about intervals. But it is most interesting to note what a different mental effect the same pair of notes have in different combinations. Sound B flat—G alone. They probably suggest the minor chord of G. Now add E flat below. You have the major chord of E flat. Or, instead, we may add C. The combination appears to be a dominant seventh in F. Or add A. It now appears as a dominant ninth in D. The effect of the two upper notes is wholly different in each case. I think the experiments I have made with pupils who have learnt that way is that they soon get very hopeless. With regard to the

supertonic, Dr. Shinn must bear in mind that we should take the simplest possible progressions. I have used that basis now for the last ten years, and have never known it to fail at all in appealing to the ear of an instrumentalist. The proof of the pudding is in the eating. That is the point we want to get at. With regard to the teaching of harmony, that, of course, is the way in which I have applied it. I do not, of course, mean to say that these tendencies are always apparent I have simply tried to evolve from the simplest passages that which will be of help to our little pupils. You noticed, time after time, that the student whom I questioned instead of telling what I wanted gave the name of the scale degree. I think the classes that are carried on at the Royal Academy of Music and the Royal College of Music, though they are taught by very able men, are not taught on the right system. The teachers have both of them a fine sense of absolute pitch, and they are not able to realise the difficulties that their pupils experience. I should, of course, have taken care to establish the key properly if I had had time, but I was obliged to give it you cut and dried. No. 5 would, of course, strike you as in E minor, if you were not previously led to C major; but that is a condition you were not intended to assume. I am very much obliged to you, because not a word seems to have been found fault with in the deductions that I have tried to make from harmony.

W. G. McNAUGHT, ESQ., MUS. DOC.,
IN THE CHAIR.

THE BALALAÏKA.

BY ALGERNON ROSE, F.R.G.S.

IT may seem impossible, in these times of musical progress and emulation, that a family of instruments possessing unusual musical attributes should be in vogue in a large portion of Europe and yet be unknown to musicians generally. Nevertheless, such is the fact. Outside Russia the peculiar charm of the balalaika (pronounced bäl-a-*like* ka) is unknown. In our standard works on orchestration it is not mentioned, although its claims for association with the modern orchestra for special effects are as great as those of the mandoline, guitar, saxophone, surrusophone, or ophicleide.

The recollection that certain very interesting and erudite papers on Russian opera and Russian church music have been read before this Association fills me with much diffidence when I venture to draw attention to an instrument which has hitherto been identified with the serf of Russia. Yet, when it is remembered that the Russian peasant is as musical as the poorest Irish piper, that this instrument during many generations has been almost his only artificial means for giving musical expression to his thoughts, and that the balalaika is ubiquitous throughout the Russian Empire, the importance of the instrument may not only be conceded by liberal thinkers, but the musician may even regard it with reverence.

Having alluded to the Irish pipes, another typically national instrument occurs to me. The Irish hand harp might still be pleasurably cultivated in our sister isle. It has, however, sunk into irretrievable oblivion. Its musical value is consequently dead. The balalaika is, however, a living reality. It may therefore be regarded as a factor of immense value for conserving and revealing those peculiarities of musical thought—of phrasing, accentuation, and distinctive melody—of a great people, as yet unyoked to the musical laws accepted by the rest of Europe.

In July last I had an opportunity of hearing the balalaika in St. Petersburg. The best performances were those given by the Capelle organised by Mr. Herman Rode, of Moscow. His son, Mr. Ilma Rode, a clever violinist, is leader of this Capelle. Ilma's four sisters—Wera, Soffi, Elisawetta, and Raisa—took part, being all musicians of remarkable talent, although two of them were very young. Four other good players, not members of the Rode family, completed the band. Potpourris of Russian airs constituted the main part

of the programme. This was listened to attentively and with manifest pleasure and understanding by a large and enthusiastic audience.

As a solo instrument the balalaïka has little value; but in ensemble playing it excels. I learnt that the chief of all balalaïka players in Russia is Andreff, of St. Petersburg. At the time of my visit he was away at Paris, having been engaged to play at the Exhibition. To him credit is due for having, firstly, increased the resources of his instrument, and, secondly, for having promoted excellence in ensemble rather than in solo playing. Since he has done this, the popularity of the balalaïka in Russia has increased by leaps and bounds. The instrument has, in fact, become fashionable. It is whispered that the Czarina herself delights in it. Even as the Scot will always love his pipes, so the Russian has always loved his balalaïka. Away to the east, as far as Vladivostock, the balalaïka is to be found. In the north its tone solaces the peasant during the long, solitary, and dreary winter. At the fairs at Nijni it is to be heard incessantly, and from any convivial vodka party or wedding feast the balalaïka would, indeed, be sorely missed. Thus, the instrument has long been cultivated by the lower classes; but only in recent years has it been affected by ladies of fashion, who often now play the balalaïka to their friends of an evening. Professional players are seldom engaged to teach the instrument. It is mostly learnt by ear, with the help of a primer for self-instruction, such as E. Dekker-Shenk's Tutor for the Balalaïka. As such publications are only printed in Russian, they are of little use to musicians unacquainted with that language.

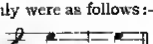
Let me repeat that, by itself, a single balalaïka is not heard to advantage. One should listen to the performance of a good band of these instruments, where the playing is properly harmonised, to gain the best impression. In Russia such an opportunity is not difficult to find. Nearly all schools, factories, cadet and naval corps possess such bands, and soldier-musicians are now required to play the balalaïka for their officers' mess or regimental dances. No firework *fête* in Russia is complete without some balalaïka music, and at the dinner parties of wealthy Russians a balalaïka band is usually engaged to play during the feast. It may here be mentioned that Russians mostly get married in the evening. Church service is at eight; dinner follows at midnight, accompanied by balalaïka music; the bride and bridegroom and their friends afterwards dance till five or six o'clock in the morning, prior to the couple going to their new home, a honeymoon tour in Russia being unusual.

The effect produced by a full choir of balalaïki is as difficult to describe in words as would be the effect of a new shade of

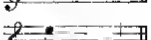
colour. There is something of the mandoline quality about the tone, although the balalaïka sounds softer and more seductive. Again, the sound might be likened to that which would result from a large silvery-toned Ruckers harpsichord, for, in the balalaïka, the harpsichord "crash" is now and again emphatic. On two occasions when I heard the Rode Capelle the players showed wonderful dexterity, precision, and control over their curious instruments. Playing well in tune, they produced beautiful *pianissimo* and *crescendo* effects, whilst they gave out, when desired, an astonishing *forte*.

It is a truism to say that a musical genius can make any musical instrument sound musical. Conversely, an unmusical man can cause the best musical instrument to displease the ear. In ordinary hands, the balalaïka—like the violin—is by no means remarkable. In the hands of an artist it is wonderful. If there be any secret in obtaining the best effects in balalaïka playing, it is due to the artist's "style," or that subtle power of changing rhythm and unconsciously producing contrasting shades of piano, forte, fortissimo, crescendo and diminuendo sound, which defies analysis and cannot be taught any more than can be a beautiful literary style. With the band in question—under the leadership of a gifted player, their capacity for expression, unity of attack, and correctness of rendering (they played, Hungarian fashion, without book), created an ensemble which was evidence in itself that constant and patient rehearsal had been gone through for a lengthy period before a public performance had been given, or the criticism of an exacting audience had been challenged. The nine instruments constituting the complete balalaïka family were as follows:—

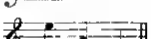
Two piccolos, tuned to mi, la, mi—



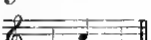
One primo, tuned to mi, la, la—



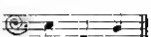
Two secondos, tuned to mi, la, mi—



One alto, tuned to mi, la, mi—



Two bassos, tuned to mi, la, re—

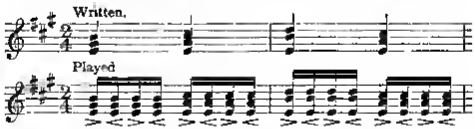


One contra-basso, tuned to mi, la, mi—

The measurements of the Primo balalaika were as follows:—From nut on finger-board to bridge, 17¾ inches; length of finger-board, 11 inches, from nut to top of sound-hole, 14 inches; from nut to tail, 20½ inches; length of head, 5 inches; back of neck to back button, 11 inches; corner to corner of bottom side, 14⅝ inches; corner to corner of side faces, 11¼ inches; and width at bottom of finger-board, 1½ inches

A balalaika player is seldom happy unless he plays on his own instrument, because the instruments in no two bands are tuned systematically alike. In tuning, every leader seems to suit his own fancy in regard to which notes are to be open or not. The foregoing intervals, therefore, preferred by the Rode Capelle, must not be taken as the system on which all other bands are tuned. The pitch, of course, is the usual diapason normal, although this is raised or lowered for special effects.

It should be noted that only the principal player in such a band uses a mandoline plectrum, so as to make his part specially prominent when necessary. The bass and contra-bass performers play in pizzicato fashion with the right thumb, resting the other fingers on the belly of the instrument. All the other performers twang the strings with the first finger of the right hand, keeping up a rapid vibrato, the other fingers not touching the instrument. In learning, the beginner plays slowly or his hand will become heavy. The art is to make the right hand very light, for one note is usually repeated from eight to twelve times. In fact, the tremolo is done as quickly as possible. It suffices, in learning, to repeat each minim eight times, each crotchet four times, and a quaver twice. Thus, notation for the balalaika is played—



For pizzicato playing, the hand is closed. One finger after another produces a better tone than if the same finger is always used. Appoggiatura are given pizzicato with the thumb of the left hand, whilst the other fingers press the finger-board to produce the notes. When a glissando is played, the appoggiatura are sounded with the right hand.

Passerbski, late of Moscow and now of St. Petersburg, is reputed to be the best balalaika maker. For the Rode

Capelle he made one piccolo, one primo, and the alto instrument. Akusen, of St. Petersburg, made the other piccolo. Ivanoff, of St. Petersburg, and Alexandroff, of Moscow, manufactured the two basses and the giant contra-bass.

The best balalaïki cost about £10, or 100 roubles each. Mr. Rode's contra-bass came to 60 roubles.

Being too poor to buy an instrument, the Russian peasant makes his own balalaika. Rough though the instrument may be, the moujik often gets marvellous music out of it. The wood used is the Russian spruce fir, of which there is plenty to be had. Fine instruments, however, are often made of other woods. A superior one I saw had a bird's-eye-maple belly and a mahogany neck, the head being beautifully carved to a design of two sea-horses facing each other.

In the best balalaïki the belly is as thin as cartridge paper. A surface of black veneer is often placed over the belly below the neck, where the player's finger thwacks the strings, to prevent the wood being worn through or scratched. The sound-hole is characteristic. It is much smaller than that of the mandoline or guitar, being only ¾in. in diameter. An exception to this is in a balalaika which belongs to A. J. Hipkins, Esq., F.S.A. It has an ornamented sound-hole as big as a five-shilling piece. The absence of any frets on the finger-board of Mr. Hipkins's instrument shows that it was unfinished, and it is possible that the maker intended to fill in this large aperture with a perforated disc. This balalaika is illustrated in Mr. Hipkins's monumental work, "Musical Instruments, Rare, Historic, and Unique." Much ingenuity is exercised in the decoration of the sound-holes of the balalaïki. These are sometimes rimmed with Polish silver. A favourite device is to make the mahogany, ebony, and mother-o'-pearl inlay resemble a Russian châlet, the window of which is perforated. In "Lavignac" (p. 571), an excellent illustration of such a sound-hole is given. Another form is to constitute the sound hole of an inlaid disc, containing five or six perforations. Makers of the balalaika are more modest than those of the violin, for, if the manufacturer has placed a label inside bearing his name, it is only visible when the instrument is taken to pieces—a by no means easy matter.

The head of the balalaika is guitar shaped. As already mentioned, it is occasionally well carved.

There are only three tuning pegs—similar in shape to those in the violin. These are usually of ivory. A few balalaika, however, have six pegs, each string being doubled to increase the tremolo effect. In the unwieldy contra-bass balalaika, an iron rod, or peg, projects from the right hand corner,

so that the player, like a cellist, may get a firm hold from the ground.

The neck is usually of pine, being fixed into the body of the instrument with a small block like a mandoline. On the face of the neck is the ebony finger board. This is fretted with thick silver wire, and the ebony nut stands well up from the finger-board. According to the register of the instrument, so does the number of the frets vary. It should be understood that the rough balalaika, made and used by the peasants, has only three frets, and these are merely pieces of string bound tightly round the neck. In the article on "Frets," in Grove, the balalaika is referred to as having "coloured lines that serve for frets." Musicians in St. Petersburg have seen no such instruments. The ordinary bought instrument has five frets. These are intended to produce only eight notes. Andréff claims to have invented the chromatic balalaika with sixteen frets. With these, all the chromatic intervals within two octaves can be sounded. Inlaid *in* the finger-board—instead of at the side of the neck as in the guitar—are four small discs of pearl to indicate the positions. These are between the second, fourth, sixth, and eleventh frets.

In the little, or piccolo, balalaika, the number of frets is twenty-one, Passerbski adding five additional frets like *leger* lines below the neck on the belly. In the simple or old balalaika the drone strings are merely used as drones, whereas, in the chromatic balalaika, they are used for chords. Thus, the simple balalaika is seldom played in more than one key—A major or minor—but the chromatic instrument is played in all keys. Compared with the twenty-one frets of the piccolo, the great contra-bass balalaika has but fourteen.

In shape the back is not rounded like a gourd as in the mandoline. It may be described as hemispheriçonical. Seven pieces of plain maple are glued together in a mould or matrix, in the same way that a mandoline is made. These pieces form at the base a rough quarter cone which narrows as it tapers upwards towards the neck. The best, as well as the home-made balalaika, have sometimes flat backs. With well-made instruments, nevertheless, the usual custom is to flute and purfle the back. Although usually of maple, the back is sometimes of mahogany. The enterprising German, being desirous of competing in this growing Russian industry, has imported a number of cheap balalaika with fluted backs from Markneukirchen. The upper edges of the side—into which the belly is inserted—are inlaid with ebony lining instead of violin purfling. Observe the odd number of the strings and the odd number of the pieces of the back—analogous to the strings of the lyre. In "Musical Instruments and their Homes" (M. and W. Brown, New

York), two balalaïka are mentioned, one possessing three strings and the other four. The first is described "Balalaïka (*sic*) — Rude specimen unpainted, 3 strings, used by Russian peasants. Length 27 ins., greatest width 8 ins." The second is detailed "Balalaïka (*sic*), a rude guitar with 4 catgut strings. The body of triangular shape, the back rounded. The face of white wood, the back painted red, and the handle (*sic*) black. Used by the Cossacks. Length 26½ ins. Greatest width 10½ ins., depth 4 ins." No frets are shown in either instrument, but, as the illustrations are facsimiles of bad freehand pen drawings, they cannot be relied on.

Underneath the bridge in the typical instrument, where the back is most expanded, the latter is jointed to a flat bottom-piece, which rests on the right arm of the player, and meets the belly of the instrument at an acute angle. In roughly made balalaïki, the heptagonal back is secured to the bottom-piece by means of wooden pegs. This bottom, which connects the back and belly, consists of stout ⅛ inch maple to carry the chief strain on the instrument. Into the bottom three tail-pins are placed. These are ordinary guitar pins, and pass through a tail-block 2 inches wide by ½-inch thick.

As already noted, there are only three strings in the normal balalaïka. The first, or melody string, is usually of silver. In cheap instruments it is of steel, similar to the mandoline E string. Gut is the substance of the two others, which are generally tuned in unison a fifth below. They serve the purpose of a reverberating drone. It should be noted that the two gut strings are in unison, but that they are unlike in gauge, the first being of the violin E size and the second of the A thickness. In the Capelle of instruments named, the material of the strings was as follows:—The leader's piccolo had three steel strings, sometimes doubled and tuned in pairs as in the old citterns: he alone used the plectrum. One steel string and two of gut were on the other piccolo, primo and secondo instruments. The altos and one basso had each two gut and one copper string, the other bass having three overspun silver strings like the contra-basso.

An extraordinary feature of the Russian balalaïka is undoubtedly its shape, because (if we except the *tromba marina*) it is the only known musical instrument of which the outline of the body is triangular. With its small sound-hole it suggests a triangular dulcimer, or psaltery, furnished with a neck. Whence, I would ask, did this singularly shaped instrument come? Many theories might be propounded. It is possible that the triangle or pyramid shape was suggested by the pagan sign of fire, and that the sound-hole represents the eye which is seen in such symbols. May be, the shape was, after all, merely adopted for the sake of convenience.

In the sketch I give, showing a peasant playing the instrument, the performer is supporting the bottom-piece on the upper part of his right arm. And here it may be noted that the front face of the balalaïka is almost level. At first sight it appears flat and is therefore not a "belly" in the strict sense. Carefully examined, however, it is seen to be slightly

convex, after the style of the cittern. It is, in fact, part of a true sound-board, because the player who does not nurse his instrument and thereby impede the vibration, holds it, during manipulation, well away from him so as to take advantage of all possible resonance. The belly usually consists of four strips of Russian silver fir taken from the centre of the tree.

Instead of being laid over the sides of the instrument as in the violin, it is rabetted round and let into the sides On the belly, the bridge is like that of the old English mandoline—*i.e.*, of banjo pattern—with two feet. Inside there is no sound-post, but the belly is supported by three bars or ribs, like a guitar The first bar is below the bridge, the second above it, and the third is just beneath the sound hole and can be felt on insertion of the little finger through the hole.

A stranger in Russia, on seeing a balalaïka for the first time, naturally concludes that its derivation was from the East. But the Russian warmly contends that its origin was not Tartar. Nevertheless, Ogilvie says that the balalaïka is "A musical instrument of very ancient Slavonic origin, common amongst the Russians and Tartars, and, according to Niebuhr, also in Egypt and Arabia It is of the guitar kind but has only *two* strings, of which one only is used to produce the air, the other giving a monotonous bass" Tauchnitz' Russian dictionary defines "balalaïka" a three stringed lute, whereas in the article on the "Lute," in Grove, the Russian *Kobsa* is classed as a lute, but the balalaïka as a guitar. Engel gives an interesting illustration of the *Kobsa* (p. 219). In regard to the etymology, Tauchnitz translates "balâkery" as a buffoon, coming from the verb "balachóoret," to jest, to play the buffoon, and "balakanne" means to gossip, chat, talk Alexandrow's dictionary gives the following kindred words: "Balagoor," a merry-andrew; "Balalaechka," the diminutive of balalaïka, "balaganshick," a showman or booth-holder, the root being "balovat,' to play the fool. Obviously, then, the Russian is derived from the Latin *balatro*, a babbler, jester, buffoon, and the Latin word came from the Greek *βάλλιομός*—a jumping about, dancing Thus it is evident that the balalaïka was the chosen instrument of the Russian pierrot. Its triangular shape suggests his conical hat On the balalaïka, therefore, merry tunes rather than dirges were played. Carl Engel says: "The majority of the various tribes of the Caucasus have bards, called Kikoakoa, who recite in verse old stories, fairy tales, and occasionally extempore poetry, accompanying their vocal effusions with a three-stringed kind of guitar, called balalaïka."

In regard to outline, the balalaïka's nearest European relation is, perhaps, the Quinterna. Now, Mr. Blaikley has demonstrated that the shape of a musical instrument has more to do with its tone than has its substance. Nevertheless, substance also affects tone Undoubtedly the three corners or points of the balalaïka cause an acoustical peculiarity in the *timbre* of this instrument, in contradistinction to the full and mellow tone produced by the curves of the violin It would be unfair to compare the "balloon"-shaped *Pip'a* of China, or the square bodied Samisen of Japan, with

the triangular balalaika, because not only the proportions of these three instruments, but the materials of them, differ essentially from one another—the wood of the Chinese instrument being very thick and heavy and the Japanese having only a thin belly of vellum. For the same reason—thickness or deadness of substance—the ponderous, but small toned, pear-shaped Chinese guitar, entirely lacks the power of the pear-shaped Spanish guitar, the thickness of the body of which is reduced to a minimum

Whatever a stranger may think of the picturesqueness of the triangular balalaika, the Russian considers its form perfectly beautiful. Familiarity with musical instruments begets love for their appearance, however bizarre—like the lop-sided grand piano—unmusical artists may at first sight consider them to be.

During the four and a half years which the Rode Capelle has been before the Russian public, it has appeared with invariable success in Moscow, St. Petersburg, Odessa, Kiev, Cracow, Warsaw, and other places Adaptations of operas, arrangements of Liszt's rhapsodies, &c., are included in the programmes, the chief items of which are some twenty pot pourris of Russian airs.

Such Russian melodies as "The Night" are much beloved, and certain tunes by Glinka, Tschaikowski, Vertoffski, Lvoff, and other well-known native musicians are popular. The glorious folk melodies of Russia come mostly from the Volga district, between Moscow and Nijni Novgorod. When Russian dances are played, the balalaïki render the music with a peculiar *élan*, lilt, and accent The Kasatzock and Kamarinska are danced by the men, and the Harovod is a village dance in which all join, encircling hands, and singing at the same time. As the music changes, the players often appear to get excited, as they smile and laugh towards each other. The fun really begins when one player puts down his instrument and dances wildly, thrusting out the feet alternately in a squatting position, extending his arms, and whirling around like a mad dervish. Another player joins in, and then another, whilst the onlookers mark the rhythm by clapping their hands.

That the balalaika is as much a vehicle of sentiment as it is a stimulus to terpsichorean excitement, the following incident may show. An Englishman I met, who had come by the overland route from Vladivostock to Moscow, informed me that under certain circumstances the instrument can become hateful In the train between Stretensk and Irkutch, a young man was making love to a girl by playing the balalaïka to her. This went on all day long—morning, noon, and night—for several days! Yet—the maid liked it

The balalaïka is as much the national musical instrument of Russia as the Samisen is of Japan. To show how it is cultivated by all classes, I may mention that General Kutapoff, master of the Imperial Hunt, at Peterhof, has lately formed a balalaika capelle of young huntsmen, who are instructed by Mr. Ilïa Rode

Apart from the balalaïka, two other curious Russian instruments may be noted. The *Svistulka* is used by the basket sellers. It is a flute-à-bec made from the pear tree Then there is the ubiquitous *Rajok*, a species of small Russian accordian heard everywhere. An article, entitled "Die Industrie der Musikinstrumente in Russland," published in the *Zeitschrift fur Instrumentenbau* (Paul de Wit, Leipzig) from Consular Reports, says that "in 1897, 48,850 such accordians were made in Russia at a value of 137,000 roubles, and that the other Russian folk instrument which now enjoys great favour in the highest classes is the balalaika. In certain districts an industry has developed in the manufacture of these instruments giving employment to a very large number of workers, but the labour is badly paid. It is only recently that these large factories have been established." The *Rajok* is often played most cleverly and humorously by the Moujiks, who delight in patter songs One man I heard was exceedingly funny; he had the voice of a Henschel, the gestures of a Grossmith, with the pedal dexterity of a Peace.

If I have demonstrated that the Russian pride in their national instrument is justified my object is fulfilled From a musical standpoint the balalaika is, assuredly, worthy of attention, because it has a peculiar tone colour of its own, because it is as complete a family as is the violin tribe, and because a skilful nonet of such instruments is capable of expressing a high degree of musical poetry. Possibly, the balalaïka has already been associated with the orchestra in Russian opera. It is not for the writer to suggest in what way the cultivation and appreciation of such an instrument may be furthered. To a music-lover living outside Russia the singularity of shape and peculiarity of the tone of the balalaïka render it as interesting as is a rare species of bird to an ornithologist. The instrument has impressed me in that manner.

DISCUSSION.

THE CHAIRMAN.—This is a paper which may not invite general discussion, but there may be some here who may have something to say on it and we shall be very glad to hear them.

Mrs. NEWMARCH.—Mr. Chairman, it is getting so late that I feel hardly justified in detaining you by any remarks of mine. Mr. Rose has not said anything about the antiquity of the balalaïka. It is not a very old instrument. It existed in its oldest form as the *dombra*, a sort of guitar, the strings of which were vibrated by the fingers. This is still the special instrument of the Tatars, which seems to suggest that the balalaïka was of Tatar rather than of Slavonic origin. The *gusslee* is, perhaps, the national instrument of the greatest antiquity, and possesses the most interesting literature. There is also the *gondok*, a stringed instrument which played a very important part in the music of ancient Russia. This instrument is supposed by many authorities to be extinct. A few years ago, however, it was rumoured that a gondok-player still lived on the banks of Lake Onega. An enthusiastic amateur, in a high official position in St. Petersburg, telegraphed to the governor of the Olonetz district to detain the man at any cost—even to arrest him if necessary. The peasant, hearing that he was "wanted" by the police, fled with his *gondok* into the wilds of Siberia, and has never been heard of again. Thanks to misdirected enthusiasm, the last chance of hearing this instrument is now lost! Other instruments allied to the balalaïka are the *bandoura* of the Little Russians—commonly possessing eight strings, but occasionally having as many as twenty—and the *chongour*, the balalaïka of the Mingrelians, a Caucasian tribe. The *chongour* has four silken strings, one of which is shorter than the others. This string is sounded continuously, and acts as a pedal in the highest register. Although the Mingrelians are an oriental people, their melodies are not at all oriental in character. They are purely diatonic, and evidently based on scales borrowed from the ecclesiastical modes. (Prevalent modes, Ionic and Doric.) This is to be accounted for by the fact that the Mingrelians, like the Giorgians, are devout members of the Greek church, and the influence of religious music seems to have entirely wiped out the memory of their old musical system.

The CHAIRMAN.—I should like to move that a very hearty vote of thanks be given to Mr. Rose. I knew the name of the instrument by sight, and I have learnt the way to pronounce it for the first time in my life. I have certainly learnt more about the instrument than I ever knew before.

The vote of thanks was passed unanimously.

MUSICAL ASSOCIATION.

January 9, 1901.

Mr. Southgate (who occupied the chair pending the arrival of Dr. Maclean).—Pardon me for standing for a few moments between our lecturer and you. It is my sad duty to announce that since the last meeting we have lost a most distinguished member, Dr. William Pole, one of the founders of this Association, who died last week at the age of eighty-six. Here we may pass over the fact that he was widely recognised as a great engineering authority. Upwards of fifty years ago he was Professor of that science in the Elphinston College, Bombay, and then he occupied the same position at University College, London, and later at the Royal Engineer establishment at Chatham. He was a member of several Government Royal Commissions, and, amongst other works, planned the Imperial Railways of Japan. But we knew him as a musician—music was his recreation, and he was especially proud of his Oxford Mus. Doc. degree, which he took in 1867. It was owing to him that the University of London established a Faculty of Music, and for twelve years he acted as their Examiner. He was an Hon. Fellow of the Royal College of Organists and a member of several scientific and learned societies. Chess shared with music his chief attention outside his purely professional work. Beyond his numerous writings on many important subjects I think we may count as the greatest that masterly work "The Philosophy of Music." It was the first attempt, so far as I know, to reconcile the philosophy of æsthetics with the acoustics of music. Dr. Pole also read some valuable papers here, and, in the early days of the Association, was a very regular attendant at our meetings, taking part in several discussions with no small advantage to us. Besides all his learning he was a practical musician, an excellent organist, and he played almost to the very last. At the first part of the funeral service, which our President attended with other members, I heard, with great pleasure, his Motet, which contains so masterly an exposition of the Hundredth Psalm, in eight parts. It is, I venture to think, one of the finest specimens of the art of counterpoint we can boast of. I will ask you to pass a vote of condolence to be sent to Dr. Pole's family from the members of this Association.

Passed unanimously.

JANUARY 9, 1901.

DR. CHARLES MACLEAN,
VICE-PRESIDENT,
IN THE CHAIR.

MUSIC AND MUSICIANS OF THE WALLOON PROVINCES OF BELGIUM.

BY W. W. CORBETT.

BEFORE touching on the musical side of my paper it may be well to point out that the population of Belgium is divided into two sections, the Flemings of Teutonic origin speaking a language which is practically Dutch, and the Walloons, of Celtic origin, speaking French and Walloon. The latter occupy the S.W. provinces of Liège, Namur, Hainault, S. Brabant, and W. Luxembourg, and speak a Romance dialect, very akin to northern French of the thirteenth century. Roughly speaking, the Flemish dialect predominates in the proportion of nine to eight, so that it cannot be said that there is much difference between the two populations in point of numbers. But the two races are quite distinct, as much so as Welch and English, and for the same ethnical reasons. The very word Walloon has the same signification as the word Welch, both meaning foreigner. Neither Fleming nor Walloon belies his origin. The former is fair, phlegmatic, and inclining more to the reflective than the active life. The latter is dark, sanguine, lively and energetic. The Walloons were always to the fore in revolutionary struggles, especially those which culminated in the overthrow of the Dutch in 1830. But they were already very unruly as far back as the fifteenth century, as you may learn in a very pleasant way from the pages of Scott's novel, "Quentin Durward," or from Michelet's "Louis XI."

It is a fact which is not quite in harmony with the theories of Mr. Ruskin's disciples that the industrial and commercial pursuits which are paramount in Belgium do not hinder the people from taking an absorbing interest in the arts. The

frequent mixture of the blood of this northern race with that of sunny Spain may partially account for this. Be that as it may, the Flemish have an innate love of painting and feeling for colour.

Antwerp has been for centuries a metropolis of art and every Flemish burgher craves to include among his belongings a fine picture. On the other hand, the Walloons possess remarkable musical aptitude, which disastrous wars and social upheavals have in nowise lessened, and it is my mission to day to treat of their achievements, though I disclaim any pretence to be an authority on the subject. I take, however, a great interest in it, and circumstances conspired last year to so deepen this feeling that I made a journey to Liège in order to learn something more than I could learn from books of this remarkable race of industrial workers from whose midst have come to us such executive artists as Vieuxtemps, Ysaye, Cesar Thomson, and Jean Gerardy, and such composers as Grétry, César Franck, and Orlando di Lassus.

I think I may trace this interest to its first source by recalling certain conversations with my friend Jean Gérardy, the distinguished young violoncellist.

Monsieur Gérardy talked to me much about his native town, Liège, which is celebrated in the arts of peace and war, the manufacture of firearms being its leading industry. But especially he spoke of the mining population of the province, whose musical proclivities put those of the Welch miners in the shade, for whilst rivalling them in love of choral music, sending choirs like "La Légia" and the "Disciples of Grétry" all over Europe to win applause in concerts and prizes in competitions, they have a really extraordinary love for and appreciation of violin playing. They are not cultured people, they know little about literature and politics, have perhaps never heard of Gladstone or Bismarck, yet they know all that is worth knowing about every famous violinist of the day. In 1872 some workmen clubbed together to give Vieuxtemps a laurel wreath, which he kept to his last hour as one of his most highly prized souvenirs. In a letter to his friend Radoux he wrote: "Decidedly our country is dedicated to the violinist—*Il en pousse comme des champignons.*" Yes, these sons of toil are possessed with a passion for stringed instruments. It seems to be in the blood, and Liège is a nursery of violinists and 'cellists who spread themselves all over the world, making music for high and low, forming, as it were, a tributary stream to the great river of art. Ysaye and his three coadjutors in the Ysaye Quartet; Martin Marsick, until recently principal Professor at the Paris Conservatoire; his successor, Rémy; Jean Gérardy, and many other soloists, hail from Liège. At the

Cologne Concert in the Paris Exhibition, out of eighteen first violins twelve were from the Walloon provinces. The same can be said of many first violins and the principal 'cello at the Lamoureux Concerts, and of a large proportion of the artists in many other first class orchestras. But not all, not even all the first-rate players can obtain engagements in the front rank, as a little incident which occurred to me during my visit to the Paris Exhibition will aptly illustrate. I was sitting in a restaurant in the Street of Nations, listening to the strains of a very excellent little band. I hardly know what prompted me to ask the leader if he came from Liège, but I did so, and his reply was in the affirmative. Later, a vocalist sang an admirably written Ave Maria, the composition of the 'cellist of the orchestra. He also was from Liège. I hope you are with me when I say that such performers, who belong to that great proletariat of art which has sprung up on all sides owing to the facilities for cheap—even gratuitous, as far as Belgium is concerned—musical education, are deserving of sympathetic mention if they help to raise the taste of the public.

Many of the great Netherlandish composers of the past were born in the Walloon district. They did a great work in enriching the musical art in the direction of polyphony and counterpoint, and the world profits to this day by their labour.

How early the Walloons were interesting themselves in matters musical may be judged by the fact chronicled by Fétis, that in the thirteenth century Baten, who was a Canon at the Cathedral of Liège, wrote a book in Latin treating of a philosophy which found a place for music. But the first composer of the Walloon school appears two centuries later. Guillaume Dufay was born in Hainault in 1400, and little is known of his life; but students who watch the evolution of music from simple to complex will find much in his work, primitive as it is, to interest them. In the course of a paper read to us in November, 1895, by our learned President, Sir John Stainer, he spoke of Dufay as "the greatest master of his age" and gave us at the same time a masterly analysis of certain secular songs, the MS. of which had been found in the Bodleian Library. But his compositions consist mainly of church music. In fact, he was for ten years in the Pontifical Chapel of Rome and eventually became a priest, and I will take the opportunity of pointing out that since then almost every Belgian musician of note has been an illustrator in his own person of the proverb, "All roads lead to Rome." He has not always been a prophet in his own country, but he has invariably found the atmosphere of Rome sympathetic. For instance, Josquin des Près, the next great composer of Walloon origin appearing in musical history, was

to be found in the Papal Chapel exactly one hundred years after Dufay, and was treated with exceptional distinction by Pope Sextus IV. Passing afterwards into France, he was much fêted by Louis XII. Indeed, the musicians of that period basked more in the sunshine of royal favour than those of later days. It is not uninteresting to hear what that great music lover, Martin Luther, thought of Josquin. "Other musicians," he wrote, "do what they can with notes —Josquin does what he likes." His compositions were not only written for the church, but include some secular works which are said to be full of vivacity; and here the true Walloon nature comes out, a nature in which invincible gaiety and joviality are predominant. The composer who came after him, Roland de Latre, better known as Orlando di Lassus, was still more conspicuous in this respect. Di Lassus was born in 1530, at Mons, and was destined to receive the homage of all the musicians of his time. Royal personages vied with each other in doing him honour, and eventually he was summoned by Albert V., Duke of Bavaria, to the Court of Munich. This Prince, in character, had but little in common with the King Louis of Bavaria of our own time, who was the friend and benefactor of Wagner; but he resembled him so far that he became the patron of Lassus, and by giving him immunity from all sordid cares enabled him to work in peace for the world's benefit. Thus history presents the spectacle of two princes and two composers joining hands across the centuries. Lassus was, above all, versatile. He wrote much music, sacred and profane, his works numbering no less than 2,000, and it is evident that he must have lived laborious days. Yet he earned a reputation at Munich not only for his music but for his gay humour and conversational powers. But, alas! his brilliant mental faculties became obscured in later life, and the man who was wont to set the table in a roar became a victim to settled melancholia. A grand life's work, however, had already been accomplished, and it may be said that, next to Palestrina, he was the greatest glory of the sixteenth century.

Of the seventeenth century I have no story to tell. In Belgium many makers of musical instruments flourished, and history was made in connection with the national art of which we know so little here—that of the Carilloneur. But bell-music is rather a Flemish than a Walloon art. The most prominent among the carillon composers, Mathias Von der Glehn, was a Fleming, and beyond Tournai, with its chime of forty bells, I know of no Walloon town of importance which has a belfry with clavecin or keyboard attached. It is not until the eighteenth century that André Ernest Modeste Grétry, whose name looms large in the records of Walloon music, first appears on the scene. Grétry was born

at Liège in 1741, and at the age of seven began life, like so many musicians, as a chorister boy, learning the elements of music in the College of St. Denis.

In 1753, an Italian Opera Company gave some representations at Liège, which included Pergolesi's "Servo Padrona," and these made an impression on the young composer which coloured his whole career.

He contracted a taste for the type of music which is simple and goes straight to the heart. No complexities appear in his scores, instrumentation in the modern sense was unknown to him, but he knew how to move his public by the elegance of his melodies, by his declamation and perhaps by his knowledge of stage devices—in fact, one opera of his, to which posterity has shown complete indifference, was performed over 500 times, a noteworthy run even for modern days. This was in his city of adoption, Paris, Grétry being indissolubly connected with French art. Of the long series of operas he wrote, numbering about fifty, "Richard Cœur de Lion" is the best known through the excerpts occasionally given in the concert-room. But there is one tune of his which, originally written as a quartet in the opera of "Lucile," has become historical from the fact that it was commandeered by the Bourbons after the Restoration and used as a loyal tune. The words of the song have become almost proverbial in Belgium, though Belgian musicians have not always put into practice the sentiment they contain. *Où peut on être mieux qu'au sein de sa famille?* ("Where can one be better off than in the bosom of his family?") M. Hillier will perhaps let us hear this "Home, sweet home" of the Belgians.

As to Grétry's operas all have merit and have gained him a reputation which would have been much greater had he not been so completely eclipsed by Glück, working on similar lines but with powers infinitely greater. Nevertheless the name of Grétry is an illustrious one. Napoleon made him Chevalier of the Legion of Honour and awarded him a pension. He died, in 1813, at the Hermitage in Montmorency, formerly the house of Rousseau, and his funeral was attended by all the notabilities of the time. Fifteen years later his wish that his heart should repose in his native land of Wallonia was realized. It was transferred from Paris to Liège, and in the year 1842 a statue was inaugurated to his memory amidst festivities and gala performances at which Mendelssohn and Meyerbeer were present.

I must not omit mention of Antoine Gresnick, another Liège composer of the eighteenth century, inasmuch as he seems to have had much success in London as an operatic composer. I confess that until the other day I was in the same plight as the town councillors of Liège, who, being requested to call a street after the name of Gresnick, refused

on the ground that they had never heard of him If anyone present has specialised the musical history of London and knows something of Gresnick's doings, I hope he will speak on the subject.

The music of the Walloon composers is mostly of the type known as universal. I mean that it is not dialect music like that of Norway or Bohemia. But one Jean Noel Hamal, born in Liège in 1709, seems to have imparted to his music something distinctively Walloon. At any rate, in his quaint comic opera, "The Voyage to Chaudefontaine," of which I have the score here to day, there are choral numbers based upon the popular melodies known as Crâmignons, about which I shall have a good deal to say Meantime I may remark that the serious music of this opera is quite in the style of the great composers of the period. A troupe from Liège gave a performance of Hamal's opera a few years ago at the Nouveautes in Paris, with, I believe, considerable success, especially as regards the choral parts, inspired, as I have said, by popular tunes, of which it seems a suitable moment to speak, as M. Devillez has to leave us early. He and M Hillier are both from Liège, and have kindly volunteered to give us an idea of the Liege Crâmignon, which is sung and danced at every Kermesse and parish fête in the Province of Liège, and is indigenous to the country. The Crâmignon is interesting to the musician, to the folk-lorist, and to the student of human nature, telling at once of the love of music and of the native gaiety of the Walloon nature. Miners, male and female, descend in their cage to the dark recesses of the earth, the men singing gaily, the women bright of eye. True daughters of Eve the latter. Not even the hideous garb she wears can banish entirely from this Mimi Pinson of the mines her touches of native coquetry. You may believe that when these people are out for a holiday they let go the painter A voice sings a couplet to a popular Crâmignon tune, and a few, with hands enlaced, join in the refrain More come in till the numbers swell to dozens, whilst the fun grows fast and furious, the merry jingle louder and louder. The crowd swells to larger proportions still, spreads to the adjacent streets, and other solo singers start singing the same couplet It is like so many bees swarming The crowd by this time numbers perhaps two or three hundreds, all gambolling along after a leader holding a flag aloft, jigging in at one door and out of another like a gigantic serpent, surrounding passers by of the better classes, dancing around them and chaffing them, then dropping back again into single file, and so the fun proceeds till fatigue sets in Such is the Crâmignon, the farandole of Liège, as it has been called. I have omitted to mention that one among the dancers—he who brings up the rear—always carries a large bouquet.

This reminds me that there is in England a counterpart to the scene in the Carnival of Flowers, the so-called "Furry Faddy," which takes place annually at Helston, in Cornwall, on May 8. On this occasion the tradespeople and rustic lads and lasses trip it merrily through the streets to the tune of "Sally the Glover," and those of the gentryfolk who can succeed in throwing off their native stiffness join in. There is some analogy between the words of the average Crâmignon and the words of the Cornish song—both deal with the shafts of Cupid, but here the analogy ends. "Sally the Glover" deals in simple country sweethearting, whilst the Crâmignons contain an undercurrent of satiric meaning, and are almost always—I must use a French word—*un peu leste*, not always *un peu*. They are like the more audacious of Béranger's songs, without the touch of sentiment which, as Robert Louis Stevenson remarked, the poet infused into all he wrote. But the songs of the people of Gallo romanic stock were ever so, and no one need be offended at what is frank and primitive rather than licentious.

I have with me to-day a collection of Crâmignons, the compiler of which, Mr. Leonard Terry, gained the gold medal offered by the Liège Society of Walloon literature for the most complete collection possible of the Liège Crâmignons.

Mr. Terry, a very distinguished antiquarian, wrote, or began to write, a preface to the book, which was unfortunately cut short by death. Assistance was also given to him by Mr. Chaumont, to whom an *accessit* had been awarded in the same competition. It is here and at the service of anyone who cares to look it through. There exist societies which arrange Crâmignon competitions, performing them with elaborate costumes, and sometimes the towns organize competitions in which prizes are offered for Crâmignons of a dignified character, odes addressed to fatherland, to the king, to the constitution, and so forth. But these are hot-house varieties. They do not smack of the soil. In the real Liège Crâmignon there is, if the truth be said, more of earth than of heaven; but it is beneficent mother earth, who spares her Walloon children the heartaches which lurk in the Volkslieder of some other countries.

With regard to the music, Mr. Terry points out the curious antique tonality of some of them, but what strikes me most is their frequent irregularity of rhythm. In modern music one is often sadly bothered by uneven measures of time, but these good Liégois are not bothered at all, but sing them absolutely without effort. Baring Gould, in a preface to his collection of West of England folk-songs, traces all the tunes to some centre of musical culture. With these Crâmignons it is quite otherwise. The very irregularity of the rhythm shows them to have been a spontaneous improvisation of the people.

(At this juncture a selection of Liège Cramignons was sung by MM. Devillez and Hillier.)

To some extent you are now able to form an idea of the Walloon Crâmignon. Danced as well as sung with chorus you can well imagine it is something quite different.

I trust I am not in conflict with the austere traditions of this Society in treating of these popular songs. They are not high art, but I consider that they form a guide to certain traits of character, and a manifestation of the musical proclivities of the people, and, as such, I have offered them to you.

Last year, in company with Monsieur Gérardy, I paid a visit at Liège to the director of the Conservatoire, Monsieur Radoux. Like the heads of our own great musical schools, he is a man of all-round accomplishments; not only a musician of great gifts (whose operas have been given frequently at Brussels, Liège, and Paris), but versed in all the arts and an accomplished public speaker. The welcome he extended to me, both as friend of Monsieur Gérardy and representative of this Association, was very precious. Any information he could give me either personally or by referring me to the library of the Conservatoire was placed at my service, and I in my turn place it at yours to day.

The Conservatoire of Liège is probably the oldest in Belgium, having a history which dates further back than 1830, that eventful year which means so much to every Belgian patriot.

A proposal was made as far back as 1798 by one Henri Hamal for the establishment of a music school on account of the decadence of the maîtrises, the only homes for instruction for eight centuries. Holy Mother Church had, since the revolution, ceased to be all in all to the art of music. Hamal's idea, however, was not realised till a quarter of a century later.

In 1826 a school of music was founded, under the direction of a nephew of the great Méhul, and already in May, 1827, there were thirty-five pupils and ten professors, but in 1830 all concord of sweet sounds was silenced by the clash of arms. For a moment the school was disorganized, but after the declaration of Belgium's independence the government showed a desire, to which we must give unstinted admiration, to create institutions for the fostering of art, and, amongst others, the Conservatoire at Liège profited by its generosity. It had never absolutely shut its doors, though for a time nothing in the way of music was heard in Liège save the strains of the Brabançonne, the Marseillaise of Belgium. But now it began a new period of slow but sure development. Méhul was pioneer in the encouragement of literary, by the side of musical, education, and instituted a course of French

literature which was afterwards supplemented by a chair of history and musical æsthetics. After Méhul came Etienne Soubré, and in 1872 J. Theodore Radoux was appointed director, and has remained at the helm ever since. He is just the man to keep alive the flame of artistic enthusiasm without which the musician is nowhere. A lover of the classical in music, he never neglects the more modern developments of the art, as evidenced by the programmes of the Conservatoire Concerts, and among his innovations as teacher may be mentioned a class for lyric declamation, evening classes for adults, and public competitions in transposition at sight. In his younger days he himself gained the Grand Prix de Rome, which is offered every two years by the Academy of Belgium, to be competed for by the students of the many subsidized schools of Belgium. Of these subsidies I should like now to speak a word. It is quite remarkable how they stimulate the musical development of the nation, and yet, financially speaking, they are of sufficiently modest proportions. For instance, the Conservatoire of Liège, with its forty professors and fifteen assistant teachers, only receives £3,200 annually from the State, from the town £800, and from the provinces £270. The so-called Royal Conservatoires are endowed as follows:—

Brussels, a world famous institution, receives £8,000 annually.

Ghent, a school which has trained many excellent musicians, including Gevaert, the principal of the Brussels Conservatoire, receives £3,740, and Antwerp £4,030. But most Belgian towns have schools of music which are municipal institutions, subsidized by the town only—Guildhall schools of music in miniature.

I am not prepared to say how many of these exist, but I have a note that as early as 1875 official documents show that 216 schools existed then, some giving primary instruction only, but some being genuine academies, embracing all branches of the art.

The Walloon towns of Tournai, Verviers, Namur, and Charleroi may be signalized as possessing admirable schools of this kind.

Returning to the subject of the Prix de Rome, I find that it is not universally known that this competition exists in Belgium as well as in France, and so I conclude that a few particulars in regard to the way it is conducted may be acceptable. After a preliminary examination as to the ability of the competitors in regard to four part writing, six are chosen for the final competition, and the libretti of two cantatas, one in Flemish, and one in Walloon dialect, are placed in their hands, with the option of choosing which they like. These libretti, I may add,

are previously chosen in a preliminary competition among Belgian authors. Twenty-three days are given to the competitors in which to score the cantatas, and they are confined together within the walls of a house, with a garden in which to take the air. They are allowed to communicate freely with each other but not with the outside world. At the end of twenty-three days they give in the score and every scrap of paper upon which they have made notes, and copies of the scores are handed to each member of the jury, upon whom rests the onus of awarding the first or Grand prize, a pension of 4,000 francs annually for four years, a so called first second prize, and other honourable mentions. Each competitor gives a hearing to the jury of his work with piano, chorus, and solo singers, and the decision is made as soon as the whole six-have been heard. The winner of the Grand prize has his cantata performed at the next sitting of the Academy of Belgium, and the winner of the first second prize enjoys the same honour the following year, during which there is, of course, no competition. The first prize winner must satisfy a literary examiner before he starts on his travels. This accomplished, he is obliged to travel in foreign countries, and to send home every year an important work. The happy winner of this prize receives a reception at the Town Hall, and an ovation from friends and neighbours, speeches, flowers, and lyric enthusiasm being the order of the day. Other countries, other manners. It is barely imaginable that any Englishman should think of organising such a reception on the occasion, let us say, of the home-coming of a Mendelssohn scholar. Such honours are reserved here for the heroes of the cricket or football field.

As I have already explained, the subventions allowed to the Liège Conservatoire do not amount to much, yet for sixty years no fee has been asked from any student; but now foreigners are called upon to contribute 200 francs yearly. It is thought to be hardly fair to ask the taxpayers to contribute to the education of foreigners. None are admitted without submitting to an examination in which their musical capacities are put to the test. Not only are they not admitted unless they pass this examination, but if, after admission, they prove not to be workers they are not allowed to remain. I need hardly say that no institution without subvention could afford to do this. Another feature is that the poorer students who are deemed worthy of it are supplied with money—*Bourses d'etude*—on leaving, to continue their education. In short, the great object of this national scheme is to cultivate, at the expense of the State, the musically talented. Our system is to vote large sums for spreading a universal taste for music in primary schools rather than educating

those who possess special gifts. This is admirable from the ethical point of view—it would seem to secure the greatest happiness of the greatest number. But there is much to be said in favour of the Continental system too. Institutions subsidized by Government can afford to reject pupils who are not promising. I submit that this is an advantage not easily to be over estimated. Again, but for State aid nine-tenths of the brilliant series of artists which these subsidized schools have turned out would have been engaged in some other occupation, and their talents lost to the world.

Apart from State and municipal aid the Liège Conservatoire enjoys the advantage of a legacy of 100,000 francs left by Mme Dumont Lamarche, the widow of a rich manufacturer, the interest of which goes towards the giving of annual chamber concerts for the people. These concerts are free and, except that there is no collection afterwards, they resemble those of our own Sunday concert societies. Such artists as Joachim, Ysaye, Gérardy, the Bohemian Quartet, &c, give their services for a nominal fee, and the beautiful theatre of the Conservatoire might be filled a dozen times over were all the applicants admitted.

It must be allowed that the worthy manufacturer showed much originality when he hit upon this excellent device for giving pleasure to his fellow mortals. If only some English philanthropists would follow in his footsteps, there would be much rejoicing in the ranks of those who are working to bring the ennobling influence of good music within the range of the poorer classes.

In speaking of the group of Walloon violinists who have lent distinction to the land of their birth, I must give the place of honour to Henri Vieuxtemps (born 1820), a pupil of De Beriot and an artist who may be said to have formed a link between two schools, being at once a great Beethoven player and a great virtuoso. I had the privilege of hearing him play once—in the autumn of his life—if privilege it can be called. The grand style was there, but there were traces of decadence which are only too well accounted for by the paralysis which must then already have been threatening him, and which overcame him shortly afterwards. The testimony of Schumann, Wagner, Berlioz and a host of others goes to prove that in his day he was of the elect among interpretative artists. As to his compositions, they are not so frequently heard as of old; but the Concerto with which Lady Hallé made her *début* at the Philharmonic, the poetical Rêverie, the Fantasia Appassionata, the Fantasie Caprice, and the Ballade and Polonaise are certain to retain their hold upon the public for many years to come. The Ballade is, to my mind, the most beautiful page which came from his pen, being characterized by a certain noble simplicity which is

lacking in most of his works As an example of musician's tittle-tattle I may mention that I have heard it gravely repeated that the Ballade was written for him by Wieniawski. The statement hardly needs refutation seeing that Wieniawski was a youth at the time and had not begun to write. Vieuxtemps was a native of Verviers, and in 1881, on the occasion of the translation of his remains from Algiers, where he died, to his native town, the ceremony was attended not only by all the artistic celebrities of Belgium, but by thousands of the workpeople of the district and by strangers from all parts. In the funeral procession his Guarnerius violin was carried upon a cushion by no less a person than Eugene Ysaye, then, of course, a very young man. Particulars of Vieuxtemps's wanderings all over the world, which probably contributed to the shortening of his life, are contained in a biography written by M. Radoux, in which may also be seen some appreciations of Ysaye's talents, a quotation from which seems peculiarly apposite at a moment when that artist is so prominent a feature in our London musical life. In his last days Vieuxtemps wrote these pathetic words: "In imagination I hear always his chanterelle. It haunts me. Would I could hear it once again!" We Londoners are more fortunate. I was present only four days ago at the first concert of the Ysaye Quartet and can say that the chanterelle, or E string, of the leader has lost none of its magic.

A Homeric figure in the world of music is Ysaye, a man of extraordinary parts, and without doubt the most distinguished living representative of Walloon music. As to his playing, the critics have exhausted the language of hyperbole in praising it, but of his powers of memorizing much less is known. Any of the known concertos he can play, any of the classical symphonies he can conduct without score at five minutes' notice. His friend, Mr René Ortmans, tells me that on one occasion he put before him a concert piece in MS which he had just composed. He read it through carefully, remained for a few minutes in a brown study, and then, putting it aside, took up his violin and played it through without book and without a mistake. Of Ysaye as a conductor I have nothing to add, but one thing in connection with his work appears to me entirely admirable. He treats the members of his orchestra not as cyphers, but as friends and comrades. Best of all, he is always ready to extend a helping hand to struggling artists and composers.

I have to mention yet another Walloon artist of supreme distinction, Jean Gérardy, the violoncellist, whose gifts are, I am sure, known to all of you. His performances when a boy moved the veteran Piatti to tears, and his style as a mature artist recalls that of the great Italian, not by virtue

of technique alone, but by the possession of a certain quality of fastidious taste and artistic restraint which earned for his predecessor a foremost place among the 'cellists of his time.

Another violinist, César Thomson, who has visited London occasionally, is famous for his marvellous technique, and shines especially as a Paganini player, though he knows how to lend charm to a trifle like Simon's Berceuse. Mr. Hillier is a pupil of his and tells me that we have never heard him in London to the best advantage. He has always played after a long journey and is much embarrassed by our English pitch. César Thomson studied the violin at the Liège Conservatoire between the ages of seven and fourteen, and spent the next twenty years of his life in wanderings all over the world. When he at last returned to Liège and gave a concert, the enthusiasm of the people was so great that the Government made him an offer to form a class at the Conservatoire for him with a large salary. This offer he accepted and remained as professor at Liège until three years ago, when I saye gave up his position at the Brussels Conservatoire, his place being taken by César Thomson. The vacant post at Liège is now occupied by Ovide Musin, a violinist of great talent, also a Walloon. Martin Marsick, formerly at Paris, is now settled in Brussels, so that many of the great violinists of Wallonia have returned, if not to the "bosom of their family," at least to Belgium. There remains, however, to mention among the moderns, Joseph Debroux and Armand Parent, amongst the ancients, Jehin Prume, composer of the well-known violin piece "La melancolie."

Do not, however, think that I have mentioned all or nearly all the names of Walloon artists of exceptional ability. At Liège, as elsewhere, there exists a large number of talented men who have not the requisite influence or the social qualities which help to gain the ear of the public. Some occupy very respectable positions, if not brilliant ones, in the musical world, and live useful work-a-day lives; others join the proletariat of which I have spoken, and may do much good in their humble sphere provided they remain true to art and to themselves.

I propose to conclude this paper with a short review of the modern school of Walloon composers. One of them, César Franck, has been likened to a sun round which the younger Belgian and French composers of to-day revolve as satellites. It is true that now, ten years after his death, the spirit of César Franck shines brighter than ever it did during his lifetime; but for all that I do not feel that the simile is a happy one. He was all delicacy and reserve, and I would rather say, if I were to venture on to the thin ice of metaphor, that he is like a forest flower reposing in a brilliant bouquet, and permeating the whole with its distinctive perfume. This

silent worker, to whom a brilliant career was as nothing and duty everything, sought to inspire his pupils with his own ideals, but not to impose upon them his own personality—unlike Wagner, he is an influence not an obsession. His French pupils and disciples, Bruneau, Chabrier, Chausson, de Castillon, Holmes, Boellman, and, chief of all, Vincent D'Indy, have one characteristic in common. They are all loyal to the master, and measure their success by the extent to which they have been able to carry out his principles, but neither forfeits his individuality. Of the work done by this group it is not within my province to treat to-day, but of a few of the Walloon composers I have something to say. To the many pathetic figures of musical history is to be added that of Guillaume Lekeu, a young officer, native of Verviers, who adopted the career of a musician in direct opposition to the wishes of his parents. He was encouraged to take this step by many eminent artistic friends, and justified their encouragement by winning a first second in the Prix de Rome at the first time of asking.

After that he threw himself with much ardour, with too much ardour, in fact, into musical composition. Cantatas, orchestral works, songs, compositions for pianoforte and for the chamber followed in quick succession from his pen until he reached the age of twenty-four, when the strain of so much work and excitement began to tell upon a constitution none too robust, and before the year was out he died of brain exhaustion, the book of life closed at the first chapter. His best known work is a Sonata for piano and violin published at the instance of Ysaye, and frequently played by that artist. Mr. Ernest has played it with an intimate friend of Lekeu, Madame Irma Sethe, and he will perhaps tell us something of his impressions. At one of the recent Ysaye concerts at Queen's Hall, an Adagio for string orchestra was announced but not given, so that I am unable to speak from experience of any of his works.

Another composer, no longer on this side of the Styx, is Adolphe Samuel, formerly director of the Ghent Conservatoire, composer of many symphonies and of an oratorio, "Christus," which has been heard with much acceptance in Germany as well as in Belgium.

Emile Mathieu, who took Samuel's place at Ghent after his death, is one of the foremost among Belgian musicians. He has devoted his attention especially to the setting of operas and cantatas with subjects derived from Belgian popular legends. Among his operas may be cited "Richilde" and "l'Enfance de Roland."

Another operatic composer of note is Philippe Rüfer, Kapellmeister to the Emperor Frederick of Germany. Besides his operas, "Merlin" and "Ingo," he wrote several

important instrumental works, including a violin concerto and some chamber music.

Mons. Radoux has turned out several distinguished pupils from his composition class at Liège, of one of whom, Joseph Jongen, he is, I think, especially proud. Jongen won the Grand Prix de Rome, and there is every indication that his career will be a successful one. A symphony of his (in A major) has been much applauded both at Brussels, under Ysaye, and at Liège, conducted by himself; whilst Jean Gérardy has played a violoncello concerto, which Jongen wrote for and dedicated to him, with great success at Darmstadt. I can also speak from personal knowledge of a beautiful and distinctly original string quartet of his. Judging from this work Jongen only needs a little compression of the musical idea, which like nearly all modern men he has a tendency to over-develop, to take high rank among modern composers of chamber music. Two excellent pupils of Radoux are Dupuis Sylvain and Charles Smulders, the latter of Dutch origin and evidently a modern amongst moderns. He has written a sonata to which he has affixed no key signature. I suppose it may be called, in the latest musical jargon, omnitonic.

A brilliant writer for piano in the virtuoso school is Jules Debefve, a sort of Walloon Liszt, whose Rhapsodie Wallonne is a popular work amongst advanced pianists. Several Walloon writers have provided songs for male choir written specially for the Societies "La Légia" and the "Disciples of Grétry." This is a department of composition which has been much neglected since Mendelssohn.

I must not omit mention of Francois Rasse and of Théophile Ysaye, brother to the violinist, both composers and pianists of considerable capacity. I regret that I am unacquainted with the compositions of Théophile Ysaye, as his brother tells me they are typically Walloon in character.

An adequate appreciation of César Franck by one who knows him through and through has yet to be written. I hear that his son, a French College professor, is likely to undertake the task. This is welcome news, as we are likely to get glimpses in this way of the composer's inner life other than those obtained by a study of his music. The simple facts of his biography are these. He was born at Liège, December 10, 1822, and made his first studies at the Conservatoire of that town, which he did not leave for Paris till the age of fifteen years. I want you to note this because it establishes his relation to Walloon music. He spent the rest of his life in France, but though he was not naturalized till 1873, there is no denying that his sympathies remained to the end with the country of his adoption.

In his first year at the Conservatoire at Paris he won a

special prize by a remarkable feat for one so young. A difficult piece was given him to read at sight, which he not only read but transposed a third lower without the slightest hesitation He gained another prize by writing a fugue which is used at the Conservatoire as a model to this day. I have no time to allude to his youthful compositions. His first real success was made in oratorio, a form for which he had a special predilection. The subject chosen was the Biblical story of Ruth, but the libretto is a very poor one. The musical setting, however, includes some of the most attractive music which Franck ever wrote. It was produced at the Conservatoire in 1846, its success was immediate, and he received much sympathetic encouragement from Meyerbeer and Spontini who were present It is interesting to follow up the history of "Ruth," which was re-written and produced again in 1871, and once more it scored a decided success. From that date till his death he was engaged in producing the works by which posterity will judge him. Unlike Rossini, his best work was done late in life. For twenty-five years he lay fallow or almost fallow as a composer, but he has shown the world that the simple life of teacher and organist may be as noble as any, and as prolific in good results. The war in 1870 must have stirred him to the very depths. Wonder to relate he began his oratorio, "The Beatitudes," the text of which is taken from the Sermon on the Mount, during the siege of Paris, his thoughts far away from the murderous work going on around him. After the war was over he succeeded his master, Benoist, as professor of the organ at the Conservatoire, and in the same year he wrote another oratorio, "The Redemption."

This work is musically far more ambitious than "Ruth," but more remote from the sympathies of the "average sensual man," as the French have it. For him César Franck never condescended to write. A comparison with Gounod's "Redemption," so well known in England, seems obvious, but they are as unlike as Gregorian chant and modern hymn. The two men are as much at the opposite poles of musical thought as Brahms and Tschaikowsky. The comparative austerity of Franck's music is partly accounted for by the nature of the words, which have a philosophical rather than a religious basis. Do not infer from this that Franck was not a religious man. On the contrary, he was the devoutest of Catholics, and such was his sincerity that his works for the Church (small and large they were very numerous, and include many works written for his favourite instrument the organ) were considered by him as much in the light of oblation as of works of art. This especially applies to his magnum opus, "The Beatitudes," given for the first and only time in Britain by the Glasgow Choral Union in February last, and received

with respectful attention if not with enthusiasm by the audience, whilst the critics testified to the splendid sincerity of the work, to the rare beauty of the vocal parts, and to the exalted heights to which the composer rises when the purely religious element is present. Opinions about this work, or indeed about any of his works, differ very much. His brother professors at the Conservatoire showed considerable coldness towards him and regarded his methods as empirical. As if every Bahnbrecher, or Waybreaker, had not something in him of the empirical! Quite recently, Herr Hanslick, a leader of thought in Vienna, has pronounced against him as he pronounced against Wagner in bygone days. But the number of admirers of Franck's genius grows apace. His son is receiving almost daily shoals of letters from enthusiasts all over Europe. In short, as he tersely puts it, "the tide is rising," and Franck has now to be reckoned with as a musical force.

Time will not allow me to do more than mention such important works as the cantata "Psyche," the oratorio "Rebecca," the symphonic poems "Eolides," and "Chasseur maudit," played by Mr. Wood's orchestra in 1897, the Variations Symphoniques for piano and orchestra, the very fine, but extremely difficult Prelude, Choral, and Fugue for pianoforte, and the two operas, played at Monte Carlo shortly after the composer's death, the music of which, by the way, has been described as "Gluck in modern garb." But of his great Symphony in D I can speak, having been present at its performance, under Lamoureux, in November, 1896. It is my conviction that this work, from its lucidity, unity of design, and beauty of inspiration, will take a permanent place in the *répertoire* of the Symphony Concerts.

I have a particularly vivid recollection of the *Scherzo*, which is extremely bright and sparkling. This Symphony was also played under Mr. Wood, at a Sunday concert in March last.

Franck's chamber compositions consist of a string quartet, a quintet for piano and strings, and the sonata played to-day. I was told by Monsieur Ysaye himself last Saturday, that these works will appear in the programme of the Popular Concerts this season. The sonata is César Franck's best known work, and it might never have seen the light but for the action of Ysaye, who, on a visit one day at the composer's house, rescued it from a heap of MS., and, after trying it, walked off with it to the publishers and arranged to have it produced at his own risk. This is the sonata we shall have the pleasure of hearing to-day, the first movement of which is in a more romantic vein than usual with Franck. The subjects are very little developed, but they undergo various transformations when

they recur in subsequent movements. In the recitative you have a reminder of the theatrical element, which is seldom absent from Belgian music. In the *Finale* you will notice a clever canon. But with a musical audience like this further analysis is superfluous.

There only remains to mention the date of César Franck's death, at the age of sixty-eight, which took place on November 10, 1890. His biographers unite in saying that the quiet life he led was the one most suited to him, that his destiny was the one he would himself have chosen. But I cannot help thinking that if his life had been fuller and richer, if his experience of the world he shunned, its joys and its sorrows, had been wider, it would have reacted upon his music and vitalised it. The mood of exalted austerity would have recurred less frequently, its place taken, perhaps, by the *Joie de Vivre*, which is the dower of the Walloon race.

This same Walloon race deserves more credit than it receives from musical historians for its contributions to musical art. The elder composers are merged in the Netherlandish school, Grétry and Franck in the French, whilst the rest are known as Belgians simply. I submit that the Walloon school of music deserves to take its place in history by the side of the Flemish school of painting. I can give it no higher praise.

DISCUSSION.

THE CHAIRMAN.—It is the custom for the Chairman to pick up such crumbs as fall from the lecturer's table in the way of available remark; but when, as here, the lecture is full, there is very little of that left. We are greatly indebted both to lecturer and to performers. The former has given us exactly the sort of traveller's tale which we need, for we cannot be always spinning cocoons out of our own vitals. The performers have given us music of a class which is, I think, rarely heard within these walls. César Franck, if not exactly a master, was very nearly a master, and personally his was an interesting, noble, and pathetic figure. He was perforce a recluse, he lived a life of ceaseless labour, and he taught and taught; nevertheless, he produced music which will certainly yet make its way through Europe. He has been called a Bach who has read "Parsifal." And in spite of being an organist, he was the only person in France who founded a school of general composition. That fine St. Clothilde organ, one of Cavaillé Col's *chefs d'œuvre*, has

seen great developments. The Conservatoire taught opera writing, Franck set himself to teach pure orchestral work and chamber work. Of his pupils, there are twenty or thirty well known to Parisians. Those best known to us are Augusta Holmès and Vincent d'Indy, especially the latter, who has inherited Franck's mantle, while possessing many separate gifts of his own. Doubtless you will consider me a person of one idea, but in the face of this lecture I cannot but recur to remarks several times made before regarding the Celtic element in modern music. In Bohemia, which has done so much to leaven German music, the Celts and Slavs exist side by side. Lombardy, the home of modern Italian opera, is purely Celtic. As the lecturer has pointed out, the Walloons are the same, and undoubtedly the d'Indy school, originating as above indicated, is a Celtic art product. As I have several times said, I believe the Slavs and Celts are destined to divide the immediate musical future between them.

(A vote of thanks to lecturer and performers was then passed.)

Mr. Ernest.—Mr. Cobbett has asked me to say something about Lekeu. I have had the good fortune to play that sonata to which Mr. Cobbett has referred, with the well-known violinist Irma Sethe, with whose family Lekeu was on terms of intimate friendship. I must say, that even a passing glance at that sonata showed me that it belongs to the ultra-extreme section of one of the most extreme modern schools. It has all the characteristics of those schools, which you all know are pretty much the same, whether they be Scandinavian, Belgian, or Russian, or anything else, and which, to sum it up in a few words, consist in a desire to introduce new rhythmical and harmonic combinations at any cost. I was not surprised to find the second movement written in $\frac{7}{8}$ time, and as to harmonic peculiarities, I may mention there are chords in it with something like ten or twelve accidentals in front of them. And what is worse, there are passages in the work—sometimes of whole pages—where one really does not know what the composer is driving at, where it wants an immense mental effort to make out in what key even he is. Every time I play the sonata and come to those passages I cannot help thinking of Artemus Ward, the American humorist, who, when showing his famous panorama, used to come to a part where there was practically nothing to be seen, and then turned to his audience and in a confidential sort of way said "Ladies and gentlemen, this is a horse; you may not believe it, but you can take my word for it: it *is* a horse." In like manner I always feel inclined to say "Ladies and gentlemen, what I am playing is quite correct, you may not believe it, but you can

take my word for it it is correct." Of course, we must remember that Lekeu was only eighteen or nineteen when he wrote the sonata. We can therefore not wonder at his wishing to outdo his master Franck himself. But we must at the same time wonder at the occasional tokens of real genius which we come across in it. In fact, the ¾ movement is a perfect gem of its kind and never fails to produce a deep impression when played by such an artist as Madame Sethe. In conclusion, I may say that if Lekeu was not a genius, he was certainly a man of exceptionally great talent, and if he had lived long enough to learn the great art of self restraint, he would surely have done work worthy to rank with the very best of its kind.

Mr. Southgate.—I will detain you for only a few minutes, for the interesting lecture and illustrations we have listened to have gone on a little longer than our lectures usually do. I am sure you will all agree that Mr. Cobbett has made out a case for the Walloon school of music. I almost wish he had dwelt a little longer on one or two features of it. As for Josquin des Prez, if one wants to see what that master has done, we have only to look at the valuable book of his music our President has lately published with the assistance of his son and daughter. But to discourse on that would involve speaking on the development of counterpoint, and in the presence of such a master of the subject as Sir Frederick Bridge I had better be silent. Those little crâmignons which were played are exceedingly interesting. One could not help remarking how strong they were in their rhythm and accent. The last was undoubtedly the oldest; but I would like to ask Mr. Herbert Bunning, who should surely know, whether they are not also very much like the French chansons populaires?

Mr. Bunning.—Very much like.

Mr. Southgate.—Our chairman (in mentioning the music of the Celtic races) omitted the particular part of our country to which I believe he does not belong—Ireland. In examining racial claims for music one must not forget that Scotland, Ireland, and Wales have all displayed a certain originality of thought and diction.

M. Louis Hillier.—Of course there is a great affinity between the Liége popular crâmignons and the French chansons populaires. But, first of all, I must say that in Liége we have a quantity of Walloon folk-songs which we have not sung to you because it would have been impossible for you to understand the words. We took principally those with French words, and these, of course, have a great resemblance to the French songs. But the question is whether we Walloon people have taken some of the song-tunes from the French or the French from us? I think the latter quite likely. This is not a question of patriotism, so much the

more, as you must know, that we are not of the "Chauvin" sort in Belgium, on the contrary, we South Belgians are, by our nature and our descent, rather French in character, and it is easy to see the points of resemblance between the French people and the inhabitants of the Walloon part of Belgium which, as Mr. Cobbett said, is not to be confounded with the Flemish part. I should like to say one word about Lekeu to amplify Mr. Ernest's statement. He spoke of one of his works which is known to be very difficult. I had the pleasure of being acquainted with Lekeu, and of hearing some of his other works, and particularly the work which he wrote for the Prix de Rome, which got not the first second prize but the second second prize That is quite a symphonic work, and is far more clear and fluent. The other works of Lekeu for orchestra are, though very elaborate, quite comprehensible, and if this sonata appeared so difficult and incomprehensible it must be remembered that it is the most difficult of his works. Yes, Lekeu was really a genius, and I cannot help feeling very sorry for it, as no doubt his genius was the cause of his premature death.

Mr. Cobbett.—I thank you very much for your vote of thanks I desire to give my own personal thanks to Mr. Ernest and M. Hillier for their remarks.

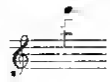
SIR J. F. BRIDGE, MUS. DOC., OXON.,

IN THE CHAIR.

THE CHESTER "RECORDERS."

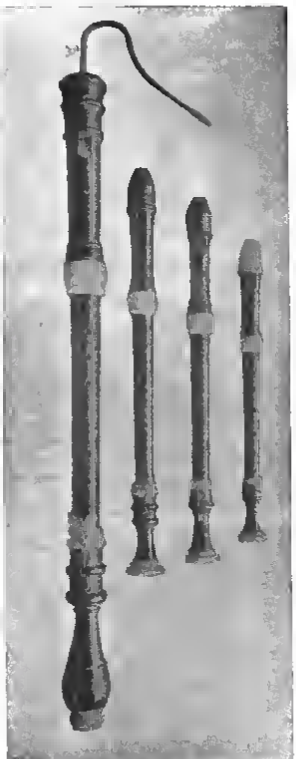
BY JOSEPH C. BRIDGE, M.A., MUS. DOC., OXON.

Two of the most old-fashioned towns to be found in Europe are Nuremberg and Chester, and comparisons between them are often made and similarities and coincidences pointed out. It is a remarkable fact that the only sets of Recorders now known to exist are to be found in those two cities. In the year 1886, the Chester Archæological Society moved into new quarters in the freshly built central "Grosvenor" Museum. Amongst the lumber from its old rooms was a peculiarly shaped box (which crumbled to pieces almost immediately) and in it the Secretary found what he thought to be "an ancient bassoon." On viewing the remains, what was my delight to find that the Society was the possessor of a rare set of ancient Flutes-a-Bec, or Recorders. These instruments in old times were made in "sets," like viols, and ranged from a *Sopranino*, going up to—



to a *Great Bass*, going down to—

A *facsimile* of the Nuremberg set has been made for the Brussels Museum, under the direction of M. Victor Mahillon. These instruments were brought to England and performances given upon them at the "Inventions" Exhibition.

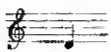


Reproduced by Kind Permission of Mr R. NEWSTEAD Curator of the Grosvenor Museum Chester

The Chester set consists of soprano in—

Weight, 8½ oz , length, 20 in. , wood, red cedar, with ivory mouthpiece

Alto in—

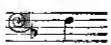


14½ oz., 24 in.

Tenor—

1 lb. 8½ oz , 26½ in.

Bass* in—



2 lbs. 10½ oz , 42½ in.

The Chester instruments bear the name of *Bressan*, under a Tudor rose. The only reference I have found to this maker is in Hawkins's "History of Music" (Vol. V., p. 483, original ed.), where he speaks of his objection to flutes—viz., that they can never be made strictly in tune. He adds that flutes a bec are generally in the key of F, and "to effect this truly is a matter of no small difficulty. The flutes of the latter kind of the younger Stanesby approach the nearest of any to perfection, but those of Bressan, though excellent in their tone, are all too flat in the upper octave."

En passant, I may say that the Stanesbys were clever and excellent workmen. Stanesby, Senr., died in 1734, and Stanesby, Junr., in 1754. I have brought with me a tenor recorder which I bought in Chester. It is in the key of C, and bears the name of Stanesby, Junr., and must have been made, therefore, about 1750. I should doubt if there were many made after that date.

The music for recorders was, I believe, of a very simple character, and confined, more or less, to an octave of notes. Semitones could only be obtained by cross-fingering, and notes beyond the octave could only be obtained by "pinching." The following directions for this are given in Salter's "Genteel Companion; or, exact directions for the Recorder," 1683:—

"Your pinching notes ascend higher than the plain notes. . . . You must bend your left thumb and let it be half over

* Messrs. Glen, of Edinburgh, have two recorders—a Tenor, in C 25⅝ in. long, and a Bass, in F, 39⅜ in. long. Maker's name, *Rippert*. The Bass instrument is very similar to the Chester Bass.

the hole underneath the Pipe, for that belongs to the upper line where the pinch is made, and pinch the nail of your thumb in the hole, then blow your Recorder a little stronger than you did when you played the other notes, and you shall find the Recorder sound eight notes higher."

Mersenne, in his "Harmonie Universelle," published in 1636, gives several compositions for flutes-a-bec, but they are all of a simple character.

There were several methods of writing for the recorder, but in all cases the stopping of the holes by the fingers is represented by black dots placed upon a series of lines varying from 6 to 8. A line through the dot ⊕ showed a "pinched" note.

In the fifteenth and sixteenth centuries they were undoubtedly looked upon as choice and expensive instruments, and were distinctly under Royal patronage, for Henry VII. bought recorders and rewarded players on them, and the inventory of Henry VIII.'s wardrobe, taken after his death, shows that he possessed 154 flutes, of which seventy-six were recorders, and we know that in his lifetime he amused himself daily by "playing at the recorders, flutes, virginals, in setting of songs and making of ballads."

At the beginning of the seventeenth century the instrument began to be more universally used, though the following well known quotation from "Hamlet" shows that it was not a common instrument up to that period :—

"*Re-enter Players, with recorders*

"*Hamlet.*—O the recorders! let me see one. (Then turning to Guildenstern he says) Will you play upon this pipe?

"*Guildenstern.*—My lord, I cannot.

"*Hamlet.*—I pray you.

"*Guildenstern.*—Believe me, I cannot.

"*Hamlet.*—I do beseech you.

"*Guildenstern.*—I know no touch of it, my lord.

"*Hamlet.*—'Tis as easy as lying: govern these ventages with your fingers and thumb, give it breath with your mouth, and it will discourse most eloquent music. Look you, these are the stops."

In Charles I.'s time, the King's band consisted of eight hautboys, six flutes, and six recorders.

Pepys records with delight how he purchased a recorder, "the sound of it being most pleasing" to him.

Evelyn, in his diary 1679, says: "They are now much in request for accompanying the voice," and several instruction books appeared about that period. In one of them, "The Genteel Companion," published in 1683, we read in the Preface: "Of the kinds of musick vocal has always had the

preference in esteem, and by consequence the recorder (as approaching nearest to the sweet delightfulness of the voice) ought to have the first place in opinion, as we see by the universal use of it confirmed."

As time went on we find recorders were changed in name to "flutes and recorders," then to "flutes," and finally to the "common flute" As if unable to survive this degradation it died about 1750, to be succeeded by the so called German flute.

Although treble recorders were made as late, say, as 1750, I believe that bass recorders had died out long before.

In July, 1772, Burney, the historian, was at Antwerp:* "After this I went to a very large building on a quay, at the side branch of the Scheld, which is called the 'Oosters Huys,' or Easterlings House, it was formerly used as a warehouse by the merchants trading to Luhec, Hamburg, and the Hanseatic towns, it is a very handsome structure, and has served, in time of war, as a barrack for two thousand men.

"I should not have mentioned my visiting this building if I had not found in it a large quantity of musical instruments of a peculiar construction. There are between thirty and forty of the common flute kind, but differing in some particulars, having, as they increase in length, keys and crooks, like hautbois and bassoons; they were made at Hamburg, and are all of one sort of wood and by one maker—Casper Rauchs Scratenbach was engraved on a brass ring or plate, which encircled most of these instruments. The large ones have brass plates pierced, and some with human figures well engraved on them; these last are longer than a bassoon would be, if unfolded. The inhabitants say that it is more than a hundred years since these instruments were used, and that there is no musician, at present in the town, who knows how to play on any one of them, as they are quite different from those now in common use. In times when commerce flourished in this city these instruments used to be played on every day by a band of musicians who attended the merchants trading to the Hans towns, in procession to the Exchange, they now hang on pegs in a closet, or rather press, with folding doors, made on purpose for their reception, though in the Great Hall there still lies on the floor, by them, a large single case made of a heavy and solid dark kind of wood, so contrived as to be capable of receiving them all; but which, when filled with these instruments, requires eight men to lift it from the ground, it was of so uncommon a shape that I was unable to divine its use, till I was told it."†

* This extract has already been quoted by Mr. Welch, but I repeat it as it is such an important piece of evidence as to the disuse of the recorder.

† "Present State of Music in Germany."—Burney, Vol. I., page 41.

No doubt the box was of the shape found at Chester, but much larger. Now had Burney possessed any real antiquarian zeal or knowledge, what a prize was there! But it is evident that he was *absolutely* ignorant of recorders. He knew the small ones were "common flutes," but he evidently had never seen or heard of bass or double-bass recorders, nor had he the wit to see that these were *un*common flutes. Of all that set, I believe only one survives—in the Museum at Antwerp. It goes down to D below the bass stave. This instrument is unique.

In 1790 we find Malone commentating, in his edition of Shakespeare, on the quotation from "Hamlet" (of which there are different readings), and wondering what a recorder was like, and whether it had a thumb hole at the back or not. These facts point to the conclusion that the big "recorder" flutes were quite unknown in the middle of last century, and, by the end of the century, the whole family had died out.

And now as to the word "recorder." The verb "to record" has in our present day only the meaning of "to remember," or "take note of"; but in earlier times it had another and very different meaning. It meant "to sing, chant, or warble like birds." "To record," says an old writer, "among fowlers, is when the bird begins to tune or sing within itself." We find the verb "to record" used in this sense frequently by the poets. Nicholas Breton, a pastoral poet of the Elizabethan era, says —

> "Sweet Philomel, the bird
> that hath the heavenly throat
> Doth now, alas! not once afford
> *recording* of a note."

Again, Thomas Watson, in "England's Helicon," says —

> "Now birds *record* new Harmonies,
> And trees do whistle melodies,
> Now every thing that nature breeds
> Doth clad itself in pleasant weedes."

Of course, we find the instrument in Shakespeare. In "Pericles," Act IV.:—

> "To the lute
> She sang, and made the night bird mute
> That still *records* with moan."

Again, in "The Midsummer Night's Dream," he says —

> "He hath played on his prologue
> Like a child on a *Recorder*."

Again, in "Two Gentlemen of Verona," scene iv.:—

"And to the nightingale's complaining notes
Tune my distresses and *record* my woes."

There is one other celebrated passage in "Hamlet" which I have already quoted.

Philip Sidney describes how—"the shepherds, pulling out recorders, which possessed the place of pipes, accorded their music to the other's voice."

Milton, in "Paradise Lost," speaks of—

"The Dorian Mood
Of Flutes and soft Recorders"

We see here, then, that the words recorder and flute are used side by side from a very early period, and Mr. Welch considers that he has traced the word "recorder" up to the middle of the fourteenth century, and that the word "recorder" is of English growth, while "flute" came over with William the Conqueror. However this may be, it is evident there must have been some difference between recorders and flutes to justify the different nomenclature. Woe to the unfortunate student who seeks this knowledge in ordinary books of musical reference. He will find there a statement, repeated again and again, to this effect that there was in the upper part of the instrument between the top hole for the fingers and the mouthpiece a special hole covered with a piece of bladder or goldbeater's skin, which gave to the instrument a distinct quality of tone, and that the name "recorder" was derived from this peculiarity of construction. The late Dr. Stone, in his article on the recorder in Grove's Dictionary, says:—

(1.) That a book published on the recorders in 1683 describes this peculiarity, and that Mr. Chappell thought the name was derived from it.

(2.) That Mr. Chappell quoted the late Mr. Ward as having seen "old English flutes" bored through the side in the upper part of the instrument, and

(3.) That there is at South Kensington a *sixteenth century recorder* with such a hole

With regard to No. 1, let me say that there is not one word in the book published in 1683 about this hole covered with membrane, nor in any other known work on the recorder, nor is there any sign of such a hole in any one of the illustrations of these instruments which have come down to us

2. That this evidence is much stronger than Mr. Ward's memory, however good that may have been.

3. That Mr. Welch has examined the so-called sixteenth century recorder, and finds it to have been made in London

about the year 1810. It has a small hole covered with skin, which does not affect the sound in the least, and was perhaps put there as an experiment.

There is nothing new to a Chinaman. In the *Victorian Magazine* for July, 1892, a Mr. Barrett mentions buying a Chinese flute in San Francisco, which had an aperture between the embouchure and the finger-holes. The shopman stuck on this hole a piece of skin in order to give a nasal tone.

Mersenne, in his *Harmonie Universelle*, published in 1636, describes many kinds of recorders and flutes, and in one case seems to suggest a similar sort of experiment, and I fancy that this is the basis for the gigantic fiction I have mentioned.

It is generally considered that flutes-a-bec were called recorders when pierced with eight holes—seven in front for the fingers and one at the back for the thumb. Undoubtedly the hole at the back was the most important feature.

I am myself inclined to think the treble instruments were oftentimes merely called flutes, and the larger instruments and those made in sets, recorders.*

DISCUSSION.

THE CHAIRMAN.—Ladies and gentlemen, it is against my own will (although, of course, it is a pleasure for me to come to support my brother) that I consented to occupy this chair. It was my wish that so great an authority on these matters as Mr. Welch should preside to day, but he obstinately refused, so I consented to perform the necessary duties of a chairman. It is gratifying to me that my brother has come all the way from Chester to bring these most interesting instruments before this Association. I think it is a worthy example to many members of our profession who may have some special opportunities for acquiring information. Nothing gives us so much pleasure as to see those who can lend a little variety to our proceedings. My brother, and those who helped him, have shown great pluck in bringing these four instruments—or rather not so much in bringing them as in trying to play on them. Of course it would be ridiculous to say that we in London have never heard anything like it. I have no doubt that if he could have brought his own Chester quartet up things would have gone a little smoother, though perhaps we

* Gavotte by Henri Le Jeune, 1636; Quartet for four recorders, J. C. Bridge; and Duet for treble and bass recorders, were played upon the set of instruments belonging to and exhibited by the Chester Archæological Society. The performers were the Rev. J. L. Bedford, Mr. Radcliffe, Mr. Finn, and Dr. J. C. Bridge.

should have missed some of the excitement and curiosity as to how they would have got through it. I suppose most of us have not had an opportunity of hearing recorders before, and I think our thanks are particularly due to those gentlemen who have come forward at the last moment, Mr. Radcliff, Mr. Finn, and Mr. Bedford, who comes from Chester and plays on the pibcorn.

Mr. WELCH.—I should like to ask Dr. Bridge a question. What is the pitch of these instruments? Are they flat like the French pitch, or *diapason normal*, as it is called, or do they correspond to the Philharmonic or English concert pitch?

Dr. BRIDGE.—They are pretty high—above the French, up to the Philharmonic pitch.

Mr. WELCH.—I am not surprised at the answer, for the evidence of flutes goes to show that the statement, so often repeated, that there was a great rise in the English pitch during the first half of the nineteenth century, cannot be sustained. I will mention another case. Mr. Radcliff has in his possession a fipple flute—or *flute-a bec*, to use its French name—made by an English maker, which is quite up to concert pitch. So surprising does this circumstance seem to those who believe the high pitch to be of modern growth, that the suggestion has been made that it must have been shortened to bring it up to the pianofortes with which it was played, it having been used half a century ago by the late Mr. Richard Carte in illustrating his lectures on the flute. An examination of the instrument, however, fails to reveal any indication of it having been cut. Now no one can suspect that the flutes before us have ever been tampered with; yet they are at the same pitch. They are most precious, for although single specimens of fipple flutes are not uncommon, a complete set, a discant, alto, tenor, and bass, is of the greatest rarity. It is true that they would be more valuable still if they could be traced back to the time of Henry VIII. There is, however, as far as I know, only one set in the world, that at Nuremberg, mentioned by Dr. Bridge, which dates from the sixteenth century. The Chester set, however, is complete, whereas one of the instruments, the smallest, is missing from the Nuremberg set; but the case, which has been preserved, is so constructed as to show the exact length and size of the missing instrument, so that there has been no difficulty in reproducing it. There seems to be some uncertainty about the kind of wood of which the Chester flutes are made. In a description of them which Mr. Newstead, the Curator of the Museum, was so good as to send me some time ago, he mentioned that an expert, a joiner, to whom they had been submitted, pronounced the wood to be red cedar. Their dark colour, however, is due evidently to a stain, the wood

itself, where it is uncoloured, looks very much like box. Perhaps there may be some one present qualified to judge who will give us his opinion.

Mr. STAINER (after examining one of the instruments).—They do not seem heavy enough for box.

Dr. J. C. BRIDGE.—I am no expert in wood, but several experts have seen these instruments and they say they are made of cedar. The ivory is very beautiful, and this must have been an expensive instrument, because the ivory is cut from a solid tusk. I ought to say we do not really know where these came from. A well-known Chester antiquary had a dim recollection that they were given to the Archæological Society by a Colonel Cholmondeley. At Cholmondeley Castle, which is not far from Chester, there is a private chapel, and it struck me they may have been used there, and being in course of time disused they were given away. But this is simply conjecture. With regard to the wood that is all I can tell you.

Mr. WELCH.—I had hoped that Dr. Bridge would say something about Handel and the flute. Very few amongst us have heard a bass flute until now, yet the bass flute was used in the orchestra as late as Handel's time. Handel employed not only the bass transverse flute, the *traversa bassa*, as he terms it, but the English bass flute—the bass recorder I had almost said; but I must not call it a recorder, for, when Handel wrote, it was no longer known by that appellation. By one of the strange mutations of nomenclature with which students of the history of musical instruments are familiar, the recorder, just as the seventeenth century was drawing to a close, changed its name to that of the flute. So rapidly and completely did the word recorder drop out of use that, by the middle of the eighteenth century, writers were in doubt as to what instrument a recorder was. Even as late as 1883, when Dr. Stone wrote the article on the recorder in Grove's Dictionary, the precise nature of the recorder was still a mystery. But since it has been shown that recorder was only an old name for the English flute, it is not uncommon for the owners of eighteenth century English flutes, which they had previously called *flutes-a-bec*, to speak of them as recorders. This is to be regretted, for, by so naming them, they create a false impression, similar to that which would be produced if a trombone were shown to the uninitiated as a sackbut, giving rise to a misconception, and indirectly claiming for their instruments a higher antiquity than that to which they are entitled. But I am wandering away from Handel. I was about to say that Handel wrote not only for the transverse, German, or lip flute now in daily use amongst us, but also for the straight, English, or fipple flute which we have just had the privilege of hearing. I should mention that

the fipple, which gives its name to the instrument, is the plug, or languid, as an organ builder would style it, which partially blocks the tube. Handel calls the fipple flute *flauto*, the lip flute *traversa*, rarely *flauto traverso*. He is very particular in distinguishing between the two instruments, so that we always know, if we refer to the German Handel Society's edition of his works, on which of them he intends a passage to be played. He sometimes scores for at least four treble fipple flutes; but we should bear in mind that formerly oboe players were expected to occasionally take the flute. The nearest approach with which I am acquainted in Handel's works to the harmony we have heard this afternoon is to be found in the opera 'Giustino.' The music, which is in three parts, is scored for *Flauti I.*, *Flauti II.*, and *Basso de' Flauti*. There were thus not less than five fipple flutes, four trebles and a bass, playing together. The flute colour, it is true, was not quite pure like that brought before us to-day, for there was an oboe in unison with the first flutes, and a viola with the bass flute. The passage forms the introduction to a song sung by Giustino just before he falls asleep and dreams a dream in which the Goddess of Fortune appears and reveals to him his destiny. I hope on a future occasion to submit for your consideration an attempt to explain why Handel chose the peculiar scoring for the situation.

Dr. BRIDGE.—What was the lowest note played by the bass flute?

Mr. WELCH.—I cannot say with certainty, it being some years since I saw the score, but if I can trust my memory, it was F. Another instrument of the fipple flute family used by Handel was the *flauto piccolo*. The piccolo with which we are familiar is a *traversa piccolo*, not a *flauto piccolo*. In connection with the *flauto piccolo* there is a question of interest to musicians. The *obbligato* to 'O ruddier than the cherry,' which, according to the score, should be played on a *flauto* or fipple flute, is played in the present day, not on the flute, but on the piccolo. What is the reason? Was the word *piccolo* accidentally omitted in the score? or could Handel, when writing 'Acis and Galatea,' have designed the *obbligato* for the *flauto*, but afterwards changed his mind, and, in practice, caused it to be played on the *flauto piccolo?* A *flauto piccolo* was used for the *obbligato* at the Antient Concerts. On this point the evidence is unquestionable. Mr. John Ella, who joined the band nearly eighty years ago, mentioned to me more than once that when 'O ruddier than the cherry' was sung, the second oboe player, a Mr. Sharp, used to play the *obbligato* on a flageolet. The Concerts of Antient Music were established within twenty years of Handel's death. The first conductor was Joah Bates; he was succeeded by

Greatorex, who was still conducting when Mr. Ella played in the band. Why, then, was not the *obbligato* given to the flute, or the piccolo? Why did Greatorex have it played on the flageolet, which had ceased to be an orchestral instrument? An answer which suggests itself in the absence of information is that he was acting in deference to a cherished tradition.

Dr. BRIDGE.—Were the piccolo players competent?

MR. WELCH.—I know no reason why they should not have been.

The CHAIRMAN.—I think we should convey the best thanks of the meeting to my brother, who has been so kind as to come down, and also to the gentlemen who have assisted him with the illustrations.

(The votes of thanks were then passed unanimously.)

March 12, 1901.

A. H D. PRENDERGAST, Esq.,

In the Chair

A SEVENTEENTH CENTURY VIEW OF MUSICAL EDUCATION.

By Sir Frederick Bridge, Mus.D.

The object of the short paper which I have promised to read to-night is to consider certain opinions upon "Music, and its importance in Education" found in the autobiography of a famous seventeenth century *dilettante*, the Hon. Roger North. It will, I hope, interest you to hear what has been written upon this subject by a clever and acute observer over 200 years ago, particularly upon the subject of "Music in the home," and as a factor in "Education." It is, no doubt, of the utmost importance that the young should be encouraged to study music, and that, through them, the music of the home should be influenced in the right direction. Who can estimate the value of music in the family circle? You will hear in the course of my address how much this old seventeenth-century amateur, Roger North, thought of home music. Let me remind you of what Shakespeare thought of it. I quote from one of his sonnets:—

> "Mark how one string, sweet husband to another,
> Strikes each in each by mutual ordering,
> Resembling sire and child and happy mother,
> Who all in one, one pleasing note do sing."

To turn now to the autobiography of Roger North, from which I have taken the bulk of my paper. Some of you may wonder who the Hon. Roger North was.

I will endeavour in as short a space as I can to give you some information, because he is an interesting and entertaining man, a man whose family occupied a great position in the history of England for many generations.

The Norths sprang from a merchant of London. The son of this merchant was raised to the peerage, and died in the Charterhouse in 1564, leaving two sons. The youngest, Sir Thomas North, was the translator of "Plutarch's Lives,"

a book from whose pages Shakespeare drew some of his inspiration; and Roger, his heir, was a great man at the court of Elizabeth. He also died in his house at London, called the Charterhouse, in 1600. His son and heir was killed in 1597, during the wars in the Netherlands, leaving behind him one Dudley, who became third Lord North in 1600, whilst still a minor. He enjoyed his title and estates for sixty-six years, maintained great state at the court of James I., and during that time did much to impoverish himself and his successors. On the accession of Charles I. he retired to his country seat at Kirtling, Norfolk, living in retirement for forty years. He died in 1668, in his eighty-sixth year. We shall hear more of this old peer, who was a very remarkable man, and, what more especially interests us, an enthusiastic musician. To him succeeded Dudley, fourth baron, the father of some very clever sons, with the youngest of whom, Roger, we, this afternoon, are the more particularly concerned. It may however interest you to hear that Charles, the heir, was one of those who sailed in the fleet to welcome Charles II. at the Restoration, and he made a very favourable impression upon Pepys (another amateur musician), who was much struck by his skill as a musician, recording that "at night he did play his part exceeding well at first sight." Francis, the second son, became Lord Keeper of the Great Seal.

The old lord, the grandfather of Roger, lived, as I explained, in retirement for many years. He was a man strong of will, and insisted upon his son and his grandchildren residing principally at Kirtling with him. This magnificent mansion, which was erected by the first lord, was in its glory at this time. It contained a splendid collection of pictures, and was the home of music; the old lord being, as we have already heard, an enthusiastic musician. Roger North and his brothers (it has been well said by Dr Jessopp, the accomplished editor of the biography) were from their childhood educated in a school of art, both eye and ear trained from infancy. Roger and his brother, the Lord Keeper, were great favourites of James II., and Roger at a very early age became Attorney-General. At the breaking out of the Revolution he retired from public life, and though he lived until 1734 he never took the oath of allegiance to the new *régime*: at the same time he was no conspirator. He lived a quiet, happy life in the country, devoting himself to the pursuits of the country gentleman, and his favourite studies he tells us were mathematics and music. We have his notions on music set out at great length in his autobiography, and more especially interesting for us is his reference to music and its importance in education.

To turn to this work. I will ask you first to remember that it was written possibly 200 years ago, during the reign of William and Mary, about the time of Purcell's death (in 1695) and before the arrival of Handel.

Roger North was a very remarkable link between two different periods of music. He was a pupil of John Jenkins, who was born in 1592, when viols were supreme and the violin was practically unknown to the English amateur. North lived until 1734—that is, until nearly a quarter of a century after the appearance of Handel in this country. The musical traditions and methods of his old master, Jenkins, must have been a strange contrast to the works of Handel which he saw, and heard produced. Our author begins by mentioning that his grandfather, Lord North, "having travelled in Italy, where music is queen, took a liking to it, and when his vanities and attendant wants had driven him into the country, his active spirit found employment with many airy entertainments as poetry," &c. You must remember this was the age of the madrigal—the end of the sixteenth century. "Thus his poetry called him to music, for he would have the masters set his phrazes, and then his grandchildren, my sisters, must sing them. He played on that antiquated instrument called the treble viol, now abrogated wholly by the use of the violin" (that was of course at the end of the next century), "and he kept an organist in his house, which was seldom without a professed music-master." John Jenkins was one of the private musicians in the house. Before that he had another organist named Loosemore. He goes on to say: "And the servants of parade and the steward and clerk of the kitchen also played, being a musical household, which with the young ladies' (my sisters') singing made a society of music such as was well esteemed in those times. And the course of the family was to have solemn music three days in the week, and often every day as masters supplied novelties for the entertainment of the old lord. And on Sunday night voices to the organ were a constant practice, and at other times symphonies intermixed with the instruments." Of course I need not say he is not referring to the modern symphony.

Truly Roger North was educated in a place where music and its power for good were thoroughly appreciated.

He goes on to tell us that "the old lord took a fancy to a wood about a mile from his house, where he would convoke his musical family, and songs were made and set for celebrating the joys there. The concerts were usually all viols to the organ or harpsichord." "The violin," he added, "came in later, and imperfectly." "When the hands were well supplied, then a whole chest went to work—that is, six viols—the music being formed for it, which would form a strange sort of music now, being an interwoven humdrum

compared with the brisk *Battuta* derived from the French and Italian.

Roger North was speaking of the time when the French and Italian music had begun to exercise a great influence in this country—after Charles II., and at the end of that century. It was then he was writing, and he was comparing the music then fashionable in England with the music of the older time. "This brisk, airy accent" of the Italian music was a very different thing from the old viol music—"interwoven humdrum," as Roger has it.

North next proceeds to lament that the improvements of music have caused it to be less cultivated by *amateurs in the country*. He complains that "when music was kept in an easy and temperate air, practicable to moderate and imperfect hands, it might be retained in the country; but since it has arrived at such a pitch of perfection that even masters unless of the prime cannot entertain us, the plain way becomes ridiculous and contemptuous, and therefore must needs be laid aside." You see he was speaking of the old, quiet days of the amateur music. He took a pleasure in *domestic* music, and, that being so, he lamented any tendency to see music become merely "*professional*"—to be paid for, and not practised as a delight of the home. He quaintly suggests that "if the home cultivation of music be neglected, vice will start up and fill the vacancy," adding, "*When we know not how to pass the time we fall to drink!*" So disturbed is the old amateur by the neglect of home music for the more advanced public performances, that he adds: "I am almost of Plato's opinion that *the State ought to govern the use of it.*" His description of a London concert of the period is truly amusing and a clever piece of criticism. One would think he had been to a modern ballad concert!

"And thus it is," he says, "with the music exhibited in London publicly for half-crowns. A combination of masters agree to make a concert, as they call it, but do not submit to the government of anyone." (That is, they have no conductor—they are all conductors—we see that at some of our concerts nowadays). "And in the performance each man takes his parts according as his opinion of his own excellence. The master violin must have its solo—then joined with a lute, then a fugue or sonata, then a song, then the trumpet and hautbois, and so other variety as it happens; and upon every piece ended, the masters shift their places to make way for the next. And the company know not whether all is ended or whether anything more is to come, and what; which pauses, and devious accidental species of music presented one after the other without judgement or design, are so defective as justly to be compared to a ballad singer, who having done one ballad, begins another to a pleasant

new tune. But this combination, *regulated*, might exhibit very good music, for the pert forwardness of some, or rather of all the masters would be restrained, and they obliged to take the parts designed, and to stick to them, without perching forward to show their parts and please themselves in being admired." Then he goes on with a very interesting suggestion that "the whole should be of a piece, and all the process of it considered and put together with skill and design, to give advantage to each part, and never let the audience cease attention, but continually improve and raise it until the end."

The next observation seems to be almost prophetic "Such an entertainment I never heard composed for an hour's pastime, which is enough, but my knowledge of the art tells me it should be so." What would Roger North have said if he had heard Beethoven's symphonies? We are quite sure he would have been a good listener, but his description of what a musical entertainment ought to be, is, as I have just said, truly prophetic. His next paragraph is devoted to the advice that all young people should be performers of music. He recommends it on the ground of its being a pleasure in mere action, a pleasure in doing something. "Just as boys," he adds, "will not walk on the ground if a rail be near, but they must walk on the top of that, or if a nail is to be driven, and two or three stand by, each has a mind *he* would be pleased to do it. Therefore it must be allowed that action itself is a pleasure But gentlemen seeing the performance of the masters are very desirous to do the same, and finding the difficulty and the pain that are requisite to acquire it, are discouraged in the whole matter and lay it aside." He falls foul of London again, saying, "which is chiefly to be ascribed to this town, which is the bane of all industry, because many other pleasures stand with open arms to receive them. Music is especially desired in the country, where there are not such varieties of gay things to call young folks away, for nothing," he adds, "can be so good as music, which is a kind companion and admits all to its graces. I would not have people, that is, families, discouraged for want of perfection, but after all nothing of music is so mean or ill-performed which is not commendable and extreme useful in a country family."

The subject of teaching music next occupies attention. He certainly seems anxious to cover the whole ground while he is about it. He recommends men to study the viol, violin, and organ, and harpsichord, and double bass. For women he recommends the spinet and harpsichord, the lute, and the guitar. I wonder if he would approve of ladies playing the violin, as they now do so admirably. I do not know if he would object to it on the same ground that he objects to their

playing the lute—"inasmuch as playing the lute tends to make ladies crooked!" Then as to the teachers, he recommends the elder rather than the younger, although, he adds, "the latter may be the more agreeable for novelty and briskness, which is an advantage in most things, especially music"—his reason being that "the elder are better artists at teaching the principles of music, having more experience.' He adds, "first get a teacher who understands and has experience in teaching, which is a distinct art from playing." Here North shows much common sense. We all agree with him in the *extreme importance* of careful, conscientious, and experienced teaching. How many have to undo the sad errors which a careless, inexperienced teacher has passed over. I am convinced that in nothing in England have we made greater progress than in the *good* teaching which now is to be obtained by all who seek for it. With regard to the pupils themselves, Roger North says. "Beginners in music should be trained as in manufacture and trades, first taught to provide the material, *then* put it together, and lastly finish it. In music the material is *sound*, which may be well or ill, and that difference in the first formation of it is of the greatest importance. Good drugs are not more considerable in medicine, than the producing a good sound in music. It is the substance and foundation, which failing, all fails."

The last piece of advice which this worthy old *dilettante* gives is that scholars should be taught harmony. "Some," he says, "have not a nature capable of it, which is soon discovered; and I have known those who could neither understand a perspective draught to represent anything, nor mixture of sounds to contain anything more than a jar or confusion of noises. These are to be obligated to other business—they are not cut out for arts!" The concluding words of his observations on the importance of music in education are both melancholy and amusing. "How little these methods are pursued is rather a subject to lament than of hope to reform. Ladies hear a new song and are impatient to learn it. A master is sent for who sings it as to a parrot, till at last with infinite difficulty the tune is got, but with such infantine, imperfect, nay abominable graces, in imitation of the good that one would split to hear it."

And here I must finish my quotations from this interesting old author. Much of what he complained is true at the present time, and this being so, I do not apologise for making his treatise the basis of my paper. His observations are couched in old-fashioned phraseology, but possibly are so all the more telling. Who does not remember some of the quaint observations of that acute critic and lover of music, a contemporary of Roger North, Mr. Samuel Pepys, all the better for the quaint way in which he puts things? He was

as ardent a lover and student of music as Roger North—so much did he appreciate its value that he had his servants taught, and even taught them himself. Do you remember the somewhat serious episode (in which Mr. Pepys appears to me almost to have been the original Caudle) when the Diarist tells us, "Home and to sing with my wife and Mercer (Mrs Pepys' maid) in the garden; and coming in, I find my wife plainly dissatisfied with me, that I can spend so much time with Mercer, teaching her to sing, and could never take the pains with her. Which I acknowledge, but it is because that the girl do take musick mightily readily, and she do not; and musick is the thing of the world that I love most, and all the pleasure almost that I now take. So to bed in some little discontent, but no words from me." And do you remember his observations on the singing of a young lady, who possibly had been taught in the way Roger North describes:—

"After supper late to sing; but Lord! how did I please myself to make Betty Turner sing, to see what a beast she is as to singing, not knowing how to sing one note in tune; but, only for the experiment, I would not for 40s. hear her sing a tune: worse than my wife a thousand times, so that it do a little reconcile me to her."

I cannot longer detain you—in fact, I fear I have already trespassed upon your patience. Let me express the hope that we all sympathise with the ardent aspirations of old Roger North, and look upon music as an important branch of education.

The time has gone by when the Professor of Philosophy could say to the musician (as in the "Taming of the Shrew"), "Fiddler, forbear, you grow too forward Sir"

We musicians and lovers of music must claim for it its rightful place in education, and, to those who would object to the claim, reply also in the words of Shakespeare:—

> "Wrangling Pedant
> This is the patroness of heavenly harmony;
> Then give me leave to have prerogative,
> And when in music we have spent an hour,
> Your lecture shall have leisure for as much."

DISCUSSION.

THE CHAIRMAN.—Ladies and gentlemen, we have had a short paper, but an extremely interesting one, from Sir Frederick Bridge I hope that some of you will contribute a few observations on the subject, which belongs to an historical period in the life of poetry and music. The seventeenth century was a time when the dramatic entertainments called masques were at the height of popularity, and when even such seats of learning as the Inns of Court devoted much time and money to them. The Benchers of those days compelled the law students to work also at music and dancing and acting. In Whitelock's Annals of his time (seventeenth century), it is recorded that Shirley's masque, entitled "The Triumph of Peace," was performed at Whitehall Palace by members of the four Inns of Court, at a total cost of nearly £30,000—an enormous sum considering the comparative value of money in those days. I hope someone has a few observations to make on this very interesting period of musical history.

Mr. SOUTHGATE.—I would make one observation on this interesting paper, and that is with regard to Jenkins. I think we have passed by old Jenkins with scant courtesy. Sir Frederick quotes Hullah's statement that he wrote cartloads of music and none has survived. But in Hullah's valuable little book on the Transition Period, if I remember rightly, he gives a very remarkable Trio for viols by Jenkins, which I have always looked on as an extraordinarily early specimen of free part-writing. It consists of three movements, and I think the last is in the fugal style on a chromatic subject. Indeed, I believe Sir Frederick Bridge has given us that very piece at one of his lectures Jenkins was so popular that his music was frequently asked for on the Continent, and merchants who traded there were not infrequently requested to send some music of Jenkins. In the Bodleian Library there are many compositions of Jenkins for viols. I have copied out some few of them. There is one composition I have for four viols with an independent organ part. I mention these works of the old English worthy, because it seems that Jenkins inaugurated a style of composition that has been successfully followed elsewhere. After he left Sir Roger North's he went into the Wodehouse household, where he lived for many years, and died in their service. Somebody told me that his tombstone, in Kimberley churchyard, was sadly neglected. I mentioned this to Sir Frederick Gore Ouseley, who suggested I should write to Lord Kimberley on the subject, and he replied "Yes, we know the name of Jenkins in this part of the world, and

possibly you will like to hear that I have had the name re-cut on his tombstone at my own expense."

Mr J. S. Shedlock.—I would only say with reference to the remarks made that we need not go so far as the Bodleian Library to find music by Jenkins. There is a great deal of it not very far from this spot. I think we have a very interesting specimen of home music in the Bach family—not only that of J. S Bach, but of his predecessors and ancestors, I think that is a very notable illustration of family music As Sir Frederick Bridge remarked, there is nothing much to argue about in his paper; I have only to add my thanks for it.

Dr. Maclean.—Bach's connection with Mizler's Association for Musical Science is somewhat in point here. Mizler tried for a very long time without success to secure Bach as a member, till one day, three years before his death, Bach wrote a triple canon in six parts much to his own satisfaction, and he thereon sent it in and enrolled himself Similarly, I think a subject having pleased Sir Frederick Bridge, he has thereon broken his long silence, to our advantage. The subject of this old English music is far too much ignored, and I say so in no antiquarian spirit. Last year I was at a performance in St. James's Hall, where there were some hundreds present, and just half-a dozen violists on the platform. The latter played some English music belonging exactly to the period referred to by the lecturer, and I can only say that it held the audience and sounded completely beautiful. North talks of the "interwoven humdrum." I demur to the "humdrum" (as we now understand that word), but the interweaving was certainly there. We are too much disposed to put our heads in the sand, and imagine there is no music except to-day's To look backward as well as forward is necessary for getting the right perspective It is to be hoped that this lecture will contribute to stimulate an interest in the admirable old English viol music. I have a small personal interest in the subject of the lecture, having been once at Rougham, the seat of Roger North's descendants, and having been often at Wroxton, the seat of the North barony The Norths are now country gentlemen, the family once took a very prominent part in English public life

The Chairman.—With reference to Sir Frederick Bridge's remark that the violin was but little used at the commencement of the seventeenth century, it may be interesting to mention that in the libretto of the "Masque of Flowers," written and produced in 1614, a list is given of the instruments used in the performance, amongst them being "A Treble Violin," which I should imagine to be one of the very earliest instances of the mention of the *violin* in a list of instruments.

Sir Frederick Bridge.—Of course I would say that in reading this paper I only proposed to call your attention to the observations of this man, who has interested me very much since I have had time to devote to the archæological side of music, and not by any means to comment on the people with whom it is connected. With regard to Jenkins I do not yield to my friend Mr. Southgate in my admiration of him. His work is very often surprising in that particular point to which Mr. Southgate alluded—his use of the chromatic style. There is one very beautiful trio that Jenkins wrote to celebrate the death of William Lawes. He gave up his place in the Abbey when he refused to sign the Solemn League and Covenant (his brother signed it, and kept his place), and in the Muniment room you see a very interesting note of "William Lawes in arms against the Parliament." He went to Chester and was killed. If I had to give you a lecture on Jenkins, I could keep you for a couple of hours. There are many charming ditties you will find in those books edited by Playford There is no doubt that he was a very excellent musician, and a man that could write real melody And his tonality was so fixed. He wrote that Fancy to which Mr. Southgate referred more in the old modes, but he also wrote quite in the modern tonality. He wrote a piece anticipating the "Battle of Prague." It was called the "Battle of Newark," full of trumpetings and drummings. I nearly spoilt one of Broadwood's pianos once in a lecture trying to get out the effect of the trumpet. With regard to the Norths themselves, Dr. Maclean has hardly done justice to the later members of the family. A very distinguished descendant of Roger was that very clever artist, Marian North, who painted those beautiful pictures of flowers in Kew Gardens. In one of her books she mentions her old ancestor, Roger. She says that she was writing under Roger's portrait, and that she could see him looking on her with approbation. I do not think there is anything else I have to comment on. You are all very kind in saying you liked my paper. I am glad of it. It was not very long, and I think that is a recommendation both in papers and sermons.

A vote of thanks to Sir Frederick Bridge closed the meeting.

April 16, 1901.

Dr. CHARLES W. PEARCE,

In the Chair

THE ÆSTHETIC TREATMENT OF BACH'S ORGAN MUSIC

By H. Heathcote Statham

If some apology is required from an amateur for offering some remarks on this subject to an audience partly, at least, composed of professional musicians, I may say that perhaps few persons can have given more time and thought to this particular subject than I have. For a good many years of my life the study and practice of Bach's organ compositions was my principal recreation, especially with the view of getting all the effect from them for which a modern organ affords the opportunity; and there are none of the larger and more important compositions which I have not tried over and over again, in various ways, with this object. The suggestions I have to make, therefore, are at all events not hastily arrived at.

Bach's organ compositions, which are so strangely neglected or ignored by many, even by those who consider themselves in a special sense worshippers of Bach, are, in fact, his central artistic work. As this is an unpopular opinion at present, I may cite two distinguished critical authorities in support of it. Spitta says:—

"Bach started from the organ and remained faithful to it to the last day of his life. All his productions in other departments—or at any rate all his sacred compositions—are merely an expansion and development of his organ music: this was to him the basis of all creation, the vivifying soul of every form he wrought out."

Sir Hubert Parry, in "The Art of Music," holds nearly the same language:—

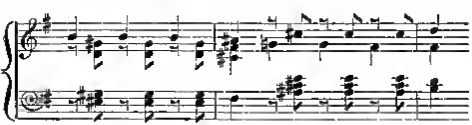
"Bach's musical organisation became steeped in organ effects and the phraseology which was most appropriate to the instrument became the natural language for the expression of his musical ideas, and remained so for the rest of his life, though tempered and enlarged by the wide range of his sympathetic studies in every branch of composition."

To this it may be added that it is in organ music that Bach stands absolutely alone, not only with no rival, but no second. As a choral writer, you may institute comparisons between

him and Handel, but there are no other organ compositions which can in any way be considered in the same category. He remains the supreme writer for the greatest of instruments.

It is to this permeating influence of the organ—the medium *par excellence* of strict and severe harmonic structure—that we may ascribe, in great measure, the closely knit structure and the grave and serious style which pervades Bach's vocal compositions also. But it may be questioned whether this pervading influence of the organ was not without its drawbacks. It led to his writing for voices too much in the organ style, and more especially in regard to solo airs, he is deficient in melodic inspiration. The German organ of his day, which was without even that capacity for *cantabile* expression afforded in modern organs by the swell, was rather calculated to starve than to develop melodic sentiment; and his solo airs, in many cases at least, instead of being pure vocal expressions of melody supported by a subordinate accompaniment, have too much the effect of the voice being only one instrument in a contrapuntal scheme in which the accompaniment is of equal importance with the voice, and hampers its freedom of expression.

Before proceeding to consider the treatment of the organ works, I would make the strongest possible protest against the fashionable derangement of some of them for the piano. In many cases not even the actual notes can be represented on the piano, because the playing of the bass on the pedals gives an opportunity for extended harmony beyond the compass of the two hands on the piano. In Liszt's arrangement of the G minor Fugue the proper movement of the parts is in many passages interrupted or transposed, and as to the prelude, there is so much Liszt in it that there is very little Bach left. It must be remembered that this is not like arranging from an orchestral score, where there is a great deal of reduplication of parts to be simplified, and where one has to represent the effect of string passages which cannot be played on the keyboard. In Bach's organ compositions there is no duplication of parts; every note is an essential feature; to alter it is to tamper with the composition. But neither can the effect be represented on the piano. Pianists seem to think the "fittle E minor" specially suited to the piano. But the finest passage in the Prelude, commencing—



is unrepresentable on the piano, because its effect depends entirely on the complete sustaining power of the organ in the melodic phrase, and the great mass of the answering chords. The first time I ever heard that passage played slowly on the "full organ" of a large instrument, it left on my mind an impression of sublimity never to be effaced; on the piano it is futile. The question of scale, too, comes in. The manner in which, in the same Prelude, the pedal passage, first heard in the form—

is at the close expanded into the form—

and which produces on a large organ such an extraordinary suggestion of vast space, has not the same effect on the piano. The idea is there, but the scale is wanting. It is like the model of a temple compared with the temple itself. So with the pedal cadenza at the end of the A minor Fugue—tremendous in its effect when thundered out on a large organ, on the piano it is a mere clank in comparison—a poor imitation of the reality, paltry in scale and totally different in quality of tone. Many other instances might be cited to the same effect. If the public want to make the acquaintance of Bach's organ music let them hear it on the instrument for which it was written, and on which alone its grandeur can be realised.*

Three styles are pretty easily to be recognised in the organ works, distinguished by internal evidence, apart from any known dates, of which there appear to be few. The early style, founded on that of Buxtehude and others of Bach's predecessors, is marked by a considerable use of brilliant passages in scales and arpeggios, based on a comparatively simple harmonic structure; a typical example is the Prelude and Fugue in C, Vol. IV., No. 1,†, a more important and

* For the experiment of scoring some of these compositions for orchestra there is better excuse, but a very careful selection would have to be made as regards æsthetic character. The Toccata in F, an orchestral arrangement of which was played in London not long since, was a most mistaken choice since in character and *genre* it is, from the very first bar, emphatically keyboard music; and moreover the long "drone bass" on the pedal, at the commencement, is an effect which only the organ can give.

† The references are to Peters' edition, as the best known and most widely used.

somewhat more mature example is the ambitious but rather *rococo* composition in the same key, Vol. III., No. 7 (printed in the key of E in some editions). These are survivals from the period when the organ was still the chief music-making instrument for all public purposes, and before it had risen to the distinction of a special style appropriate to its special powers. In the brilliant Prelude and Fugue in D, in Vol. IV., obviously written in emulation of a show-piece of Buxtehude's of similar nature, Bach is already, however, emerging from the influence of precedent and striking out a style and handling of his own, as is especially evident in the short *Adagio* passage which links the Prelude to the Fugue, as well as in the bold modulation in some passages of the Fugue. To the middle style belong such works as the G minor Fugue, the G major, Vol. IV., and that in the same key in Vol. II., and the long Prelude (so-called) in E flat at the beginning of Vol. III.: compositions in which brilliancy is still aimed at, but with a much more original and varied harmonic structure. The Toccata in F begins in the second manner, but those startling modulations at the close of each section, which Mendelssohn said "seemed as if they would bring the church down," and the tremendous energy of the *Coda*, seem to place it among the works of Bach's maturest period. Among the typical works of his last period are the E minor and the B minor Preludes and Fugues in Vol II (the former of which may almost be called an organ symphony), and the "Doric" Toccata and Fugue, of which the Fugue may be said to represent the loftiest height to which organ music can attain. A fine example, less familiar than it ought to be, is the C minor Fugue in Vol. III., in which the subject—

is so strikingly dramatic in expression. Its style may usefully be compared with that of the *rococo* Prelude and Fugue in C before referred to; by an odd collocation they stand next each other in Peters' edition, but there is an artistic lifetime between them.

It is curious how uncertain is the relation in character between the preludes and fugues, both in these and in the "Wohltemperirte Clavier" it seems very doubtful whether the preludes and fugues were in all cases composed together or originally intended for each other. In the latter work, for instance, the Prelude and Fugue in C sharp are obviously composed in the same spirit and are a complete whole; but can we regard the calm and melodious Prelude in C sharp

minor as an adequate portico to the stupendous Fugue which follows it, or as the offspring of the same musical mood? So with some at least of the organ compositions. The most complete and homogeneous in style and feeling are perhaps the little E minor and the D major—the former the most pathetic, the latter the most brilliant, of all the organ compositions: in each of these cases the Prelude and Fugue represent one consistent phase of feeling from beginning to end. The same may be said of the Prelude and Fugue in G, Vol. II., and those in the same key in Vol. IV.; and in the case of the A minor and the great E minor the Preludes are worthy of and in keeping with the Fugues, though not so completely homogeneous in style as in the before-named instances. But in the B minor Prelude and Fugue, the Doric Toccata and Fugue, and the F major Toccata and Fugue, the first movement belongs to an entirely different *genre* from the fugue which follows it; in the F major composition the Toccata, in fact, completely swamps the Fugue, which is an anticlimax, and I always think it is better kept apart from the Toccata, which is complete in itself. Nor can I believe that the long and beautiful movement which Griepenkerl has placed as a Prelude to the "St. Ann's" Fugue was really written as such; it is a composition complete in itself, and I think of earlier date than the Fugue, there is more *naïveté* of style about it.

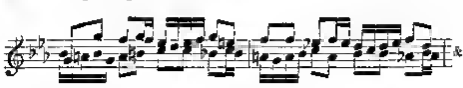
But the great point to bear in mind about these organ works of Bach is that the fugues are not to be regarded as mere examples of fugue, but as poetic conceptions—moods of musical feeling thrown into fugue form, because that was then considered the highest form of musical expression, just as in later days Beethoven threw his moods of feeling into sonata form. Spitta expresses this conviction very strongly in one passage in the biography—one cannot say he expresses himself very clearly (if he had he would not have been a German writer), but the passage is worth quoting in this connection, and is at all events picturesque:—

"We admire with justice the organic structure of an organ piece by Sebastian Bach, every smallest detail in it instinct with vital purpose: but the so-called polyphonic treatment, which clothes the firm harmonic structure is but a beautiful drapery. It resembles a Gothic Cathedral, with its groups of leaves that seem of spontaneous growth, and its capitals wreathed with flowers and leaves they call up to our fancy the seeming of independent life, but they do not live, only the artist lives in them. This radical distinction cannot be sufficiently insisted on without a comprehension of it, the whole realm of organ music as an independent art, and all that has any connection with it, including the whole of Sebastian Bach's work, cannot be understood."

Viewed in the light of this idea, it is obvious—or should be—that the method of execution of such works as these cannot be reduced to rule. The dictum which one sometimes meets

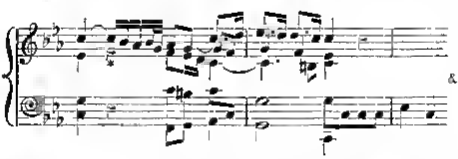
with in lesson books, that all fugues should be commenced quietly and gradually strengthened up to the close, may be all very well for academical fugues of the school of Albrechtsberger, for instance, but is not to be applied to the conceptions of Bach when put into fugue form. Each claims its own treatment according to its own character and feeling.

There are, one may say, "episode" fugues and "climax" fugues. There are very few of Bach's organ fugues, however, which do not contain episodes that demand what one may call a *recessed* treatment—a throwing back from the front plane of the composition. In the great E minor Fugue the whole middle portion of the fugue is of the character of an *intermezzo*, having little connection with the main subject of the fugue, and imperatively requiring a separate and what I have ventured to call a recessed treatment. I would, however, so far regard climax in this composition, which is really nearly the same fugue repeated before and after the *intermezzo*, that I would play the first presentment of the fugue on the full to 15th, the second and closing one on the full organ, the full power of the organ being obviously led up to in the passage at the close of the *intermezzo*. The Doric Fugue is, from its nature, essentially a "climax" fugue, to be commenced *mf* and gradually strengthened, at least as a whole; though there are two passages, on page 39 and page 41 (where the pedal part is dropped for a good many bars), which demand to be treated as episodes and recessed from the front plane of the picture. On the other hand, if we take such a composition as the fine and too little played Fugue in C minor (No. 6 of Vol. IV.), a perfectly different kind of treatment is called for. This is a double fugue in which a subject of very bold and dramatic character is first treated alone, then entirely dropped, and another subject of lighter and more graceful character is worked entirely alone; then, after a full close, the two appear in combination. This demands an entirely different treatment. It should be commenced in the boldest manner on the full organ; then the organ reduced to full to 15th for the lighter second subject; and as the treatment of this grows more and more light and playful as it proceeds, the organ should be gradually reduced, till at the passage—



we may make it a clarinet duet on the choir manual or a flute duet on the solo manual. With the re-entry of the

subject in the left hand commences a gradual *crescendo* (full swell; then great coupled to swell), till on the C at*—

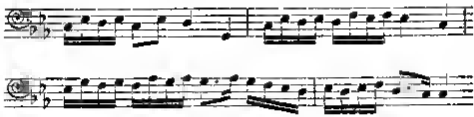


the full organ is re-introduced for the cadence leading to the third part, where the two subjects are worked together on the full organ up to the end. Then follows the rather *rococo Coda*, at the close of which the fact that the pedal is dropped for the last bar and a half plainly points to a *diminuendo* and to ending quietly, not with the full organ. In some such way, and by transition from loud to soft, or from one keyboard to another, must Bach himself have diversified the rendering of his own organ fugues. I cannot fancy that he, who showed such keen search after effect in orchestral writing, could either have ploughed through these works on the full organ or have treated them all by a rigid rule, independently of their special character, that he did diversify the preludes we know absolutely, from the indications attached to the Doric Toccata; why are we to suppose that he attached less importance to light and shade in the fugues?*

Beyond such sources of effect, which Bach himself may have employed and probably did employ, are we justified in attempting to introduce what may be called modern feeling for effect and expression into these compositions? I think it is an open question, on which no hard and fast rule can be made; such attempts must really be judged by their results. Best once tried an interesting experiment with the little E minor Fugue; he said it was an essentially pathetic composition, and should be treated as an *Adagio*, and I heard him play it so. I think it was a justifiable experiment, but it did not recommend itself to me, because I do not think it really suited the character of the composition, which, though it should be played slowly, requires a certain flow—the movement of a slow *Andante*. Another experiment of his,

* What did Bach mean by the indication "organo pleno" attached to the Prelude in B minor? Certainly not what we understand by "full organ." Obviously he meant "all the organ"—*i.e.*, all the manuals—in other words, all the variety of tone possible, and the character of the composition exactly lends itself to this idea.

however, in new readings was triumphantly successful. This was with the short Fugue in C minor, Vol. IV., where the pedal is not introduced till towards the end. This is generally passed over as a work of secondary interest; but it occurred to Best that the composition, both from the character of the theme—

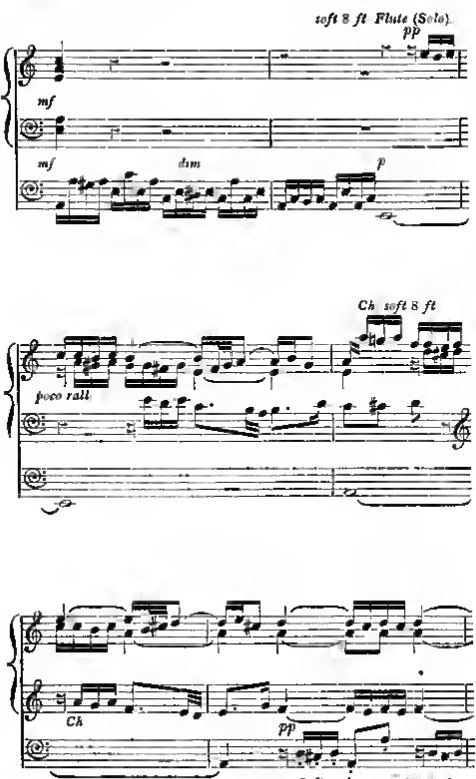


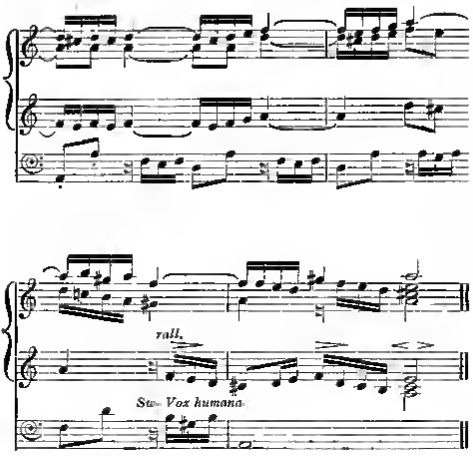
and the introduction of the pedal at the close only, was susceptible of a playful treatment. Accordingly, it was commenced *pp* on the choir manual, and kept soft nearly all through, each new entry of the theme being made on a new stop, till just before the pedal entry there was a *crescendo* with both hands on the swell, and the pedal entered with a thundering *fortissimo*. The effect was splendid, and anyone who heard it must have felt that no other reading was possible afterwards. I adopted it with what I thought one improvement—viz., giving out the theme on a bassoon stop, which has a delightfully *baroque* effect; and in fact the passage is just of the kind that you might fancy an orchestral writer giving to the bassoon. And I am inclined to think that Best had got at the secret of that fugue, and that it really was intended for playful treatment.*

In regard to some of the greater and more serious works, there is surely more interest to be made out of them for modern audiences, and more expression to be given to them, by seeking variety and delicacy of effect in contrasts of *forte* and *piano*, and of varieties of *timbre*, instead of the "straight-on" method of playing which seems generally to be considered orthodox. As an instance, I give what was my own usual treatment of the close of the Prelude to the A minor Fugue.

* As one of the speakers in the discussion seemed to imagine, because I referred two or three times to Best's readings, that my ideas on the treatment of Bach's organ music were entirely borrowed from Best's practice, I may observe that this was the only instance in which I ever adopted a reading from him. I consider him by far the greatest player of Bach's organ music I ever heard; his performance of the variations in the Passacaglia, for delicacy of artistic finish and perfect æsthetic perception, was a thing to remember all one's life after, and to be constantly hearing him was no doubt a kind of education in organ effect and handling. But all the suggestions made in this paper, with the above exception, are entirely my own.

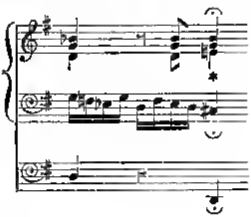
The last pedal solo gives the opportunity for gradually reducing the power—



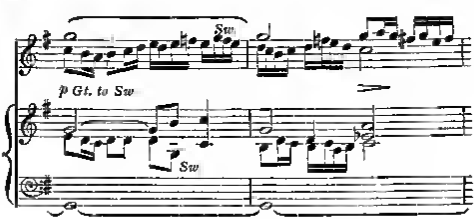


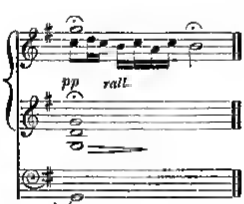
If I am asked whether I think Bach played it at all in that way, I should say probably not, but that we cannot be sure, we have so little information to go on. We do know, however, from one of his reports as to an organ, that he was particular as to the vox humana and tremulant being properly made—therefore he was none of your purists who despise those effects. What I am quite sure of is that that treatment of the conclusion of the Prelude has a lovely effect, and gives all the more force to the succeeding brilliant attack of the Fugue, and that a treatment of that kind increases the interest of the music to modern audiences. The question, why should we always end with a great noise? is equally applicable to some of the fugues. Many of the fugues, from the way the closing bars are written, obviously point to a *fortissimo* close, others do not. Take the Fugue in G, Vol. II., No. 2, which for the most part should not be loud—it is too delicate in its detail, and too widely spread in the part-writing to be roughly treated; to flounder through it on the full organ, as I have heard done, is a kind of sacrilege. We

can, however, rise to a bold *forte* for a few bars preceding the ⌒ mark, and end *ff* on that discord*—



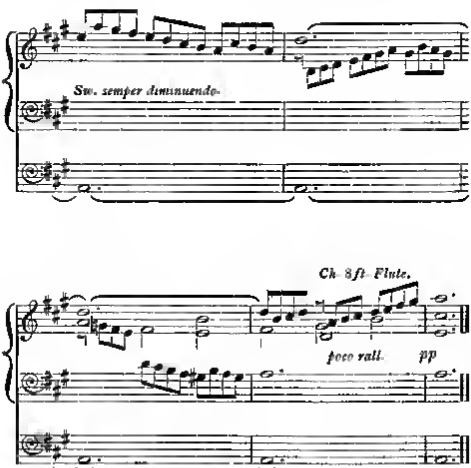
Then from that point to the close treat it as a long and gradual *diminuendo*, till three bars before the close we come to—





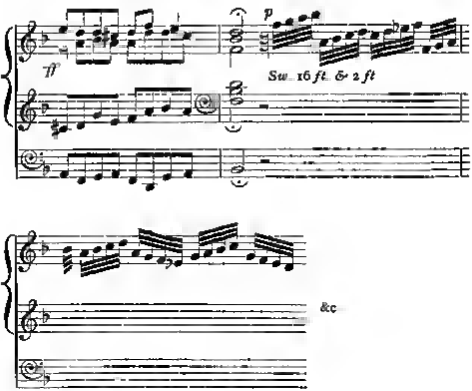
reducing it at the middle of the last bar but one to swell diapasons, and ending the last lingering phrase *pp*. The effect of this is so lovely that I cannot imagine anyone who

has once played it in that way ever wishing to play it otherwise. As another instance of the effect of a *pianissimo* ending, I may mention the splendid set of three variations or verses on the chorale, "O Lamm Gottes unschuldig," where the last page, after the third verse in which the full power of the largest organ is demanded, is occupied by a long *Coda*. Here again a most poetic effect may be produced by treating the *Coda*, after the *canto fermo* is completed, in what we may call a diminishing perspective, softer and softer, till the closing bar, where the left hand is on the swell, and the concluding scale passage is played on a soft 8-ft. flute on the choir manual—like the distant flight of an angel into the blue heaven—

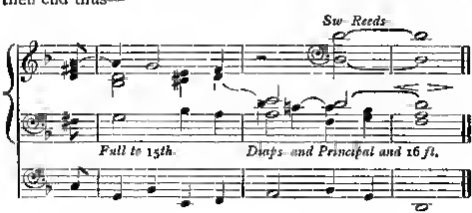


An example of the poetry of effect to be obtained by special registering is afforded in a passage towards the end of the D minor Toccata (Vol. IV.), where, after a pause on a

half-close, *ff*, occurs the light running passage, curiously labelled "Recitativ"—

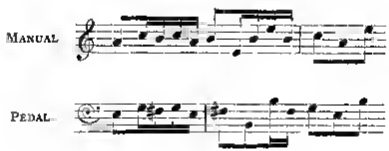


This is very commonly continued on the full organ, or perhaps on the full swell; but try it on the swell with bourdon and 15th, or (better) bourdon and piccolo only, and see what a piquant and fairylike effect it has. The conclusion of this composition affords another example of the fallacy of always ending loud; the pathetic and gloomy character of the closing bars requires something different to that: the passage preceding the three final bars should be full to mixtures; then end thus—

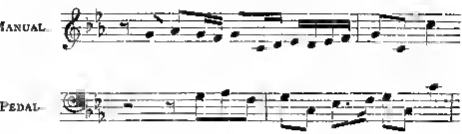


the "doubles" on the great being retained to the end to give the gloomy colouring required. If the solo organ has more than one reed of the trumpet class, the one of least strength may be substituted for the swell reeds.

A word in regard to speed. I think Bach's fugues are a good deal more often injured by being played too slow than too fast. There is evidence that Bach was a brilliant executant, and prided himself on his powers in this respect, and it was said of him that he could play as fast with his feet as others could with their hands. A great many of the fugues are full of dramatic effect and fire, and are not compositions to be droned through in a severe and solemn manner. Bearing in mind what is said of Bach's brilliant pedal-playing, the mere fact of the simplification of the theme in the pedal part, which we find sometimes, is significant enough. In the A minor Fugue, for instance, we have—



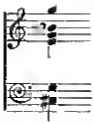
and in the second subject of the C minor Fugue (Vol. IV.)—



Unless the pace had been pretty brisk these simplifications of the pedal part would not have been necessary for Bach, and whether they were required for inferior players was a matter he would not have troubled his head about. The notion that his fugues are necessarily to be played slow, because they are fugues, is all a part of the radical error before referred to, of regarding them primarily as fugues, whereas they are primarily expressions of musical feeling,

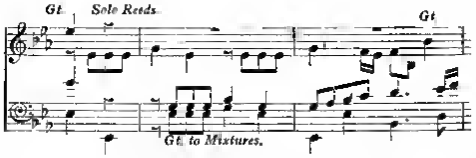
and their fugal form is the secondary and not the essential element. The A minor Fugue, in particular, is manifestly an *Allegro di bravura*, cast into a very free fugal form, just as decidedly as the first movement of the "Waldstein" Sonata is an *Allegro di bravura* cast into sonata form.

Whatever question may be raised as to the propriety of imparting modern feeling into the rendering of Bach's music, there can be none as to the propriety—I would say the duty—of making use of all the mechanical facilities afforded by the modern organ for producing light and shade and contrast of effect. Bach himself would have been entirely in favour of this, for he was essentially a man of progress, and with a great knowledge of and interest in organ mechanism. Best used to give a fine practical illustration of the resources of the modern organ in this respect, in playing the first movement of the Fantasia in G (Vol. IV.), which he generally played throughout on 16-ft. and 8-ft. diapasons, with no changes till the chord—

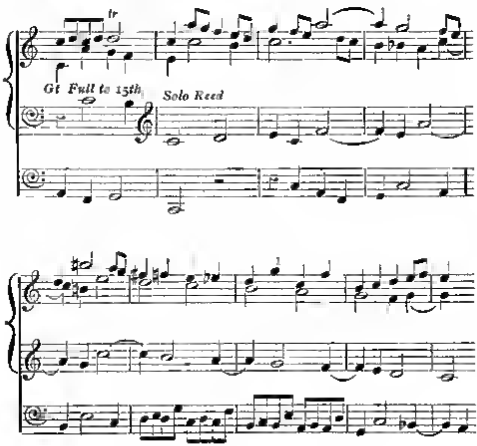


with which the movement abruptly breaks off, and into which he suddenly threw the whole power of the organ, with an almost startling effect. Bach could not have done that, because he had not the mechanism for it; but I am certain he would have enjoyed it, as much as he enjoyed the sudden shout on the word "Barabbas" in the "Passion." The modern resource of the swell, though not quite as valuable an addition to the organ as is popularly supposed, is very useful as forming a bridge from *forte* to *piano* in fugue playing, so that we pass from the great organ to the open swell, with the stops arranged as nearly as possible in the same balance of tone, and gradually close it—returning to *forte* by the reverse operation. I have found it often possible to change the great organ stops almost imperceptibly in a fugue by seizing a moment when only one note is sounding (or only one besides the pedal), always with the rule to choose a high note to add reeds on, and a low one to add flue stops on—the addition of a reed being the least perceptible on a high note, that of a mutation flue stop least on a low note. The modern institution of solo reeds on a heavy wind is a source of special effect too much overlooked in regard to classical organ music; it must be used with judgment and reserve, but many

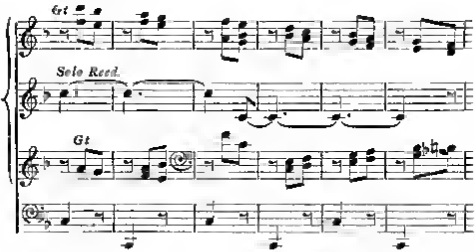
fine points may be made with it. As an instance, let me cite in the C minor Fugue, Vol. IV., the first entry of the theme in the major key—



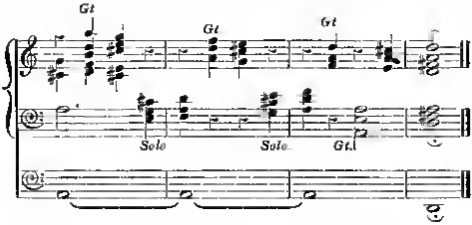
where the passage happens to exactly suit the trumpet character, and the introduction of the reeds to lead off the phrase in the new key has a most brilliant and inspiriting effect. In the "Doric" Fugue, the theme entering in the tenor part in C major can be brought out splendidly on the solo reeds, producing on the hearer the effect of a sudden upstarting of the theme in a new and unexpected quarter—



As generally played this inner theme is hardly perceptible to the hearer, on the solo reed it sings out a song of triumph heard distinctly over everything. The effect of the tuba reed in giving a long blast on a holding note may often be exceedingly fine; for an example of a splendid effect to be got with it in this sense, in the A minor Fugue, the reader is referred to the article "Registration" in Grove's "Dictionary of Music." Another instance is at the close of the Toccata in F—



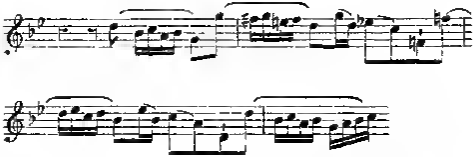
Here the solo must be coupled to the choir manual, and the C of the solo reeds held down with the thumb, while the other fingers play on the great manual. In occasional passages, too, a fine effect may be got by alternating solo reeds with the great organ, as at the close of the Doric Fugue—



There are numerous fine points of effect of this kind to be

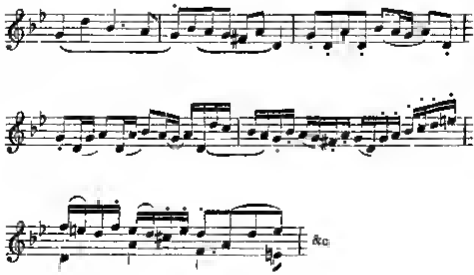
obtained by a well-judged and *sparing* use of the solo reeds in special passages, but it must be, like Mozart's use of the trombones, strictly reserved for special and appropriate passages; directly it is overdone, it loses its effect and becomes a commonplace.

The question of phrasing, as a means of giving additional point and expression to the subject of a fugue, is one of some interest. Some years ago Mr. Abdy Williams read an admirable paper to this Association on the subject of the phrasing of Bach's "Wohltemperirte Clavier" fugues, tending to show how much additional expression could be imparted to them by this means. Of course, whatever value there is in phrasing in playing a pianoforte fugue, there should be still more in the case of an organ, where it is impossible to emphasise a note by mere touch, and emphasis or special expression can only be obtained by phrasing. Whether, however, Bach himself employed any such means of expression is very doubtful. I am inclined to think that phrasing on the keyboard is a later refinement, employed to a certain extent by Mozart and his contemporaries, and carried still further by Beethoven, who is scrupulously exact in marking the phrasing of passages in his pianoforte compositions, and evidently attached the greatest importance to it. If, however, we can by phrasing impart an additional point and interest to Bach's organ compositions, we are justified in employing it. There are some of the organ subjects which neither require nor seem to admit of phrasing, the B minor Fugue, for instance, with its subject marching up the scale and down again, should be as steady as a rock. But a great deal of additional point is given to the subject of the G minor Fugue by phrasing it thus—

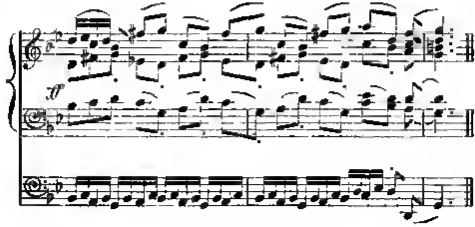


This can be kept up throughout where the subject is played by the pedal or entirely by one hand; where the subject in an inner part is divided between the two hands, of course it has to be dropped. But it is worth while to give an additional point and expression, sometimes, to the opening

figures in a fugue, even if it is mechanically impossible to continue it consistently all through. I will instance the following in opening the little G minor Fugue—



Though that phrasing of the counterpoint figure cannot be kept up all through, it gives great point and interest to the opening, and I do not think any one who had once played it that way would care to go back to the mere mechanical playing of the notes; besides, there are several passages where it can be recalled, as it were, by way of keeping up the character of the reading. In a similar spirit, at the close of the great G minor Fugue, a great life and vigour is imparted to the last three bars by phrasing the chords for the hands, thus—

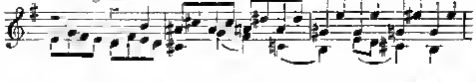


One might pursue the subject to any length; I will only offer two or three more illustrations—

C minor Fugue Vol III.

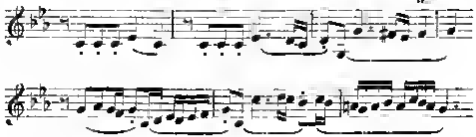
A minor Fugue.

E minor Fugue.

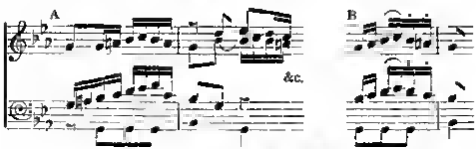


In the latter example, that *contra tempo* phrasing in the counterpoint figure in crotchets should be kept up consistently through the whole fugue, and adds greatly to its force and energy

C minor Fugue, Vol. IV

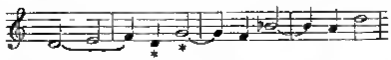


In the concluding portion of this C minor Fugue, the counterpoint figure at A, two or three times introduced, sounds rather weak and mechanical—

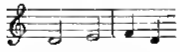


but phrase it as at B, and it is quite another matter. Whether my great favourite, the Doric Fugue, is susceptible of a phrase-treatment, or should be let severely alone, may be

a question; but it may be pointed out that if the first five notes are phrased thus—

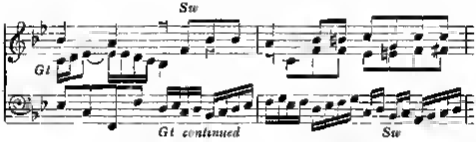


then the notes marked * seem more decidedly to anticipate and suggest the movement in intervals of fourths which follows; but it is, perhaps, an open question whether—

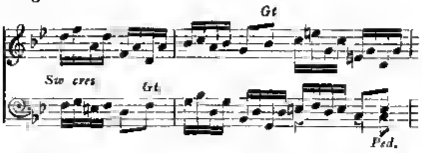


should not all be regarded as one phrase.

I may add some general remarks as to the treatment of some others of the principal compositions. The G minor Fugue I should commence on nearly full organ, or full to mixtures with a 16 ft. reed on the pedals * At the end of the first pedal passage the organ is reduced to 15th; at the end of the next pedal passage to principal; then we step on to the swell, one hand after the other, thus—

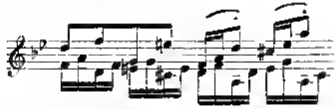


making a gradual *diminuendo*, and returning in the same way to great full to 15th, the left hand taking up the great manual first, the right following half a bar later with the same figure—

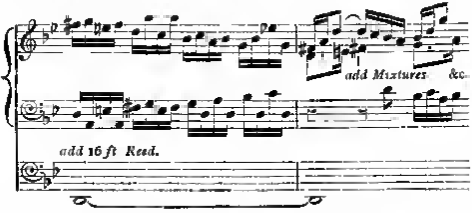


* The full to mixtures on the manuals with a 16-ft reed on the pedals, is for many organs a very good combination for the louder portions of a fugue, especially in a building where there is much echo. the manual portion is more distinct and less noisy than with a reed added while the reed on the pedal makes its entry always stand out clearly from the whole.

Where there is a solo organ with 8 ft. and 4 ft. flutes, a very pretty further digression can be made—an episode *within* an episode—by a brief excursion from the swell to the solo manual at the passage commencing—

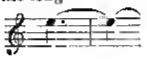


returning to the swell after a few bars *en route* for the great. With a little care all this can be done without a break in the effect, and in as unforced a manner as the change of instrumentation in an orchestra The organ must be kept at full to 15th till we reach the low D on the pedal—



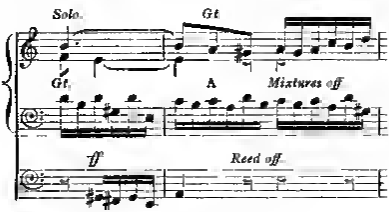
where the reed is added, the mixtures (manual) being added in the next bar at the precise instant when no note but D is being sounded. The organ is continued thus till the long episode commencing just before the last page, where the power should be gradually reduced and brought back again, as in the former episode, till the last pedal entry comes in *ff*, immediately followed by *ff* on the manual.

The A minor Fugue I would commence on the full to 15th, for if it is played the proper speed the pedal passages will not stand the confusing effect of a heavy reed. At the eighth bar of page 59 reduce to principal; at the close of the pedal passage on the same page reduce to diapasons. During the eight bars preceding the long—

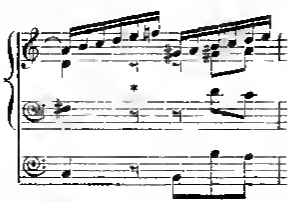


on page 61 the great organ should be gradually strengthened

again at a recurring point in each bar, till it reaches full to mixtures in the bar before the long E, which is then taken on the solo reeds (coupled to choir manual for convenience), and the pedal enters *ff*. The right hand drops the reed and comes back to the great manual at A—



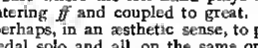
for the moment the long notes are dropped the upper part loses its trumpet character; and at the half-bar the mixtures are cut off, for the light character of the succeeding passages demands a lighter organ. This passage, with the solo reed and *ff* pedal, is the most salient effect in the whole movement; in a large organ it is wonderfully striking when treated in this way, and all the more so because the passage is short. The mixtures can be added again at * on page 62 (at the moment when only one part is sounded), in preparation for the final climax—



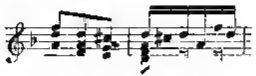
on the next page; and if there is more than one 16-ft. reed on the pedal, the quieter one may be added here; otherwise the pedal reed should be reserved till the fourth bar of the concluding page, whence to the end we want the full power of the organ. At the end of the pedal *cadenza* an additional emphasis may be produced by playing the last

half-bar slightly *ritardando*, and bringing the left hand down on the solo reeds at the final  , thus giving the greatest possible emphasis to this closing note.

Take the Toccata in F. I would commence this on great manual with principal and 15th, but *without* the 12th, which interferes with the lightness and purity of the effect,* and with the 16-ft bourdon, which prevents it sounding thin. The drone note on the pedal should not be too full—not with the largest open 16-ft., or it gets rather exasperating to the ear. At the last bar of page 17 the 12th may be added and the pedal strengthened, by way of commencing to work up for the pedal solo great manual being strengthened at the last two bars where the left hand plays alone, and the pedal solo entering *ff* and coupled to great. It would be *purer* taste, perhaps, in an æsthetic sense, to play the whole two pages, pedal solo and all, on the same organ; but the effect of the pedal solo with the full power of the organ is so grand that it would be a pity to miss it, while to begin the movement on the full organ would be barbarous. After the close of the pedal solo with the three chords on the full organ, reduce the organ and go through the same process over again on the dominant. The rest of the movement divides itself into three distinct musical ideas alternating, and treated the same way at each recurrence. That commencing—



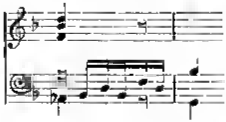
with 16-ft. reed on the pedals and full to mixtures on the great; that commencing—



which is a reminiscence of the design of the opening, with the organ reduced to 15th (and perhaps, a bar or two later, to principal)—the passage back again to the loud organ is easily managed where the pedal re-enters with the phrase—

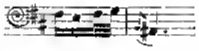
* There are many light *fugato* passages in organ music where full to 15th without the 12th, has the best effect: occasionally even bourdon diapasons and 15th, without either principal or 12th

and so on at each recurrence. Then there is the tremendous passage with the succession of third inversions of dominant sevenths—

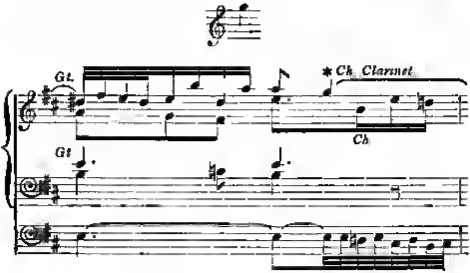


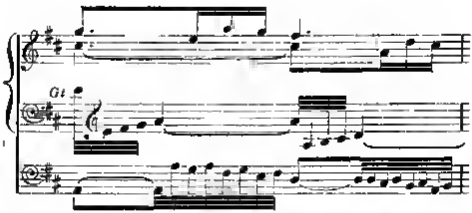
which at each recurrence should be given with every power that can be crammed on to the organ, it ought to be fired off with cannon, were that possible!

The last composition I will refer to is the Prelude and Fugue in B minor, Vol. II. The prelude calls for, and is susceptible of, so much elaboration and variety of effect that it would require too much space to go through it fully. It is not anywhere to be played very loud, only rising to full to 15th coupled to swell in the first and second lines of page 81, which is the culminating point of effect. I should commence on the swell, until the rather marked phrase on the pedal—

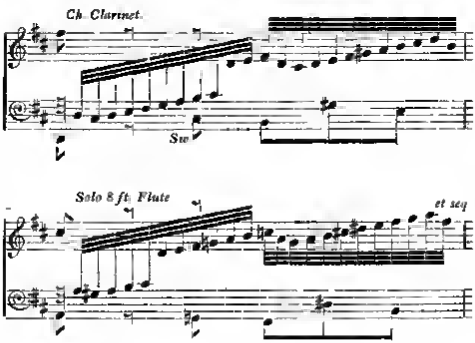


when the pedal is strengthened and the hands go on to great diapasons. Four bars later a very nice bit of scoring can be introduced, where, at the asterisk, the right hand is changed to clarinet on choir (perhaps coupled to a clarinet on solo manual) one finger or the thumb striking the clarinet



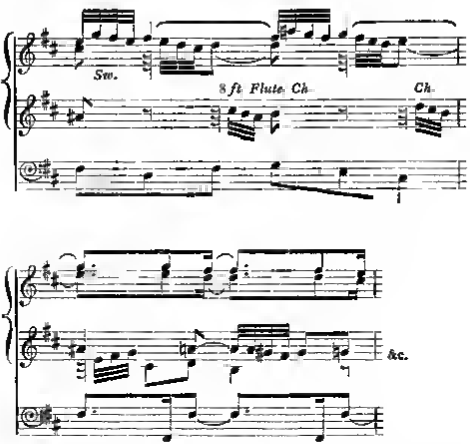


at the same moment as on the great, which is quitted at the end of the note, the passage then resolving itself into a clarinet *duo* for the right hand, with left still on great diapasons, continued thus till the next full close. This effect, however, should not be repeated at the repetition of the same passage at the foot of the third page, where both hands should be on the great, as we are there working up to the culminating effect. The passage on the second page—



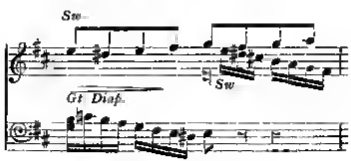
has a good effect as an alternate clarinet and flute solo (or oboe and flute), with a soft bass on the swell. The whole of the concluding page should be treated with constantly increasing delicacy and softness. The closing line has a

beautiful effect with right hand on swell (soft 8-ft. reed) and left hand on a soft choir flute—

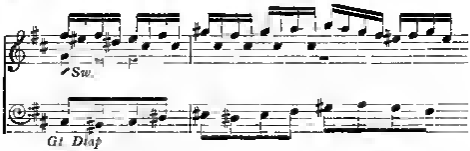


the last bar both hands on the swell diapasons only, *pp*.

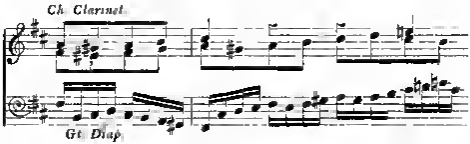
The fugue has a great deal of scope for contrasts of loud and soft, but from its very connected character the transitions are difficult to make. The commencement should be full organ, down to the close in F sharp minor on the second page, where the pedal leaves off. At that point reduce to 15th; two bars later to principal, two bars later to diapasons, then at the following passage we have—



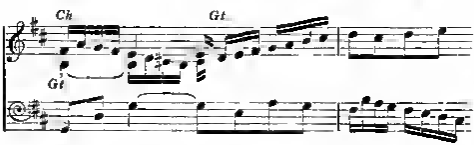
continue both hands on the swell till the next entry of the subject in the left hand, when the left drops on to great diapasons and remains there—



At the passage where the subject enters on the right hand in F sharp minor, the right hand changes to choir clarinet—



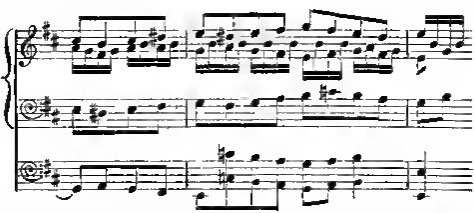
and so we remain for the next few bars, the effect of the clarinet tones here, contrasted with the liquid running passages on the great diapasons, is quite a charm to the ear. We get the right hand back on to great manual neatly enough at the scale passage at the end of the second line—



and go on with both hands on diapasons alone till the full close in D in the first bar of the last line of the page, where we add principal, and in the third bar of page 86, where there is another entry of the theme, we take an opportunity to add full to 15th, not on the first of the bar, however, that would be too harsh, but at the third quaver, where only two parts are sounding, in tenths. In the third line we may gradually strengthen both pedal and manual till we have got to full to

mixtures at the last bar of that line, where the theme enters in the treble in C sharp minor. In the next bar, at the bold phrase on the pedal—

the pedal reed is added, both to bring out that phrase and to prepare for the climax two bars following, where the theme enters in the tenor, and the whole power of the organ is brought on—

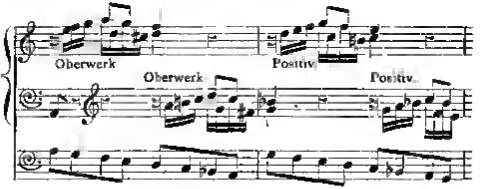


On a large organ it adds immensely to the grandeur of the passage to play the pedal in octaves, as marked here (it is not in the original), it not only adds power, but the bold contrary motion phrase beginning on the C natural sounds out with splendid effect. From here we keep full organ to the end.

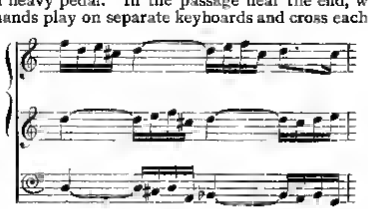
I have ventured to go in detail into my own treatment of the fugue, because it is one with which I took special trouble, and which, for the reason mentioned above, is very difficult to manage, and I must candidly admit that I was well satisfied with the result.

A word as to the balance of tone of the English organ in reference to the playing of Bach's music. In spite of the immense development in size and variety of stops of our modern organs, they still retain the old tradition of the English organ as consisting of one manual which is enclosed in a swell box, another which is essentially light and "pretty" in tone, and a third which is very much larger and heavier in scale than the other two. Though the swell is very useful, as already remarked, in assisting us in the transition from loud to soft in the fugues, as a kind of bridge, it does not in other respects add much to the effectiveness of Bach's organ music, which is not sentimental in feeling, and was not

written with any view to the kind of expression obtainable from the swell. Perhaps it is only in certain passages in the E minor and B minor Preludes that the swell is of real value in adding to the expression of the music, and it is worth note that both these movements are peculiarly modern in style compared with most of the organ compositions. Then our choir organ is obviously too light for the effects which Bach contemplated. The only insight we get into his ideas in this respect is in the Doric Toccata, where the changes of manual are all marked. In the fine passage which occurs twice, where each bar is to be played alternately on the *oberwerk* and the *positiv*—



we can get no such effect with choir and swell, and besides, the swell interferes with the smooth execution of the pedal passages. All we can get is the choir manual contrasted with, say, the smallest diapason and a flute on the great. I happened to hear Best play this Toccata on two occasions, within a short period, on the same organ. The first time he played this passage as nearly as possible as marked—viz., on choir organ and a soft great organ. The second time he evidently had felt, what I have always felt, that the effect was too light for the character of the music, and he played the whole passage on the great with diapason and principal and a heavy pedal. In the passage near the end, where the two hands play on separate keyboards and cross each other—



there is nothing to be done with an English organ, that I can see, but to play one hand on great manual *mf* and the other on the swell with 8-ft. reeds fixed open—a coarse effect, but, at all events, not weak. For such passages, as for the Trios, what we really want is two manuals of equal power. There is, or was a good many years ago, a grand old organ in the parish church of Northampton, with four keyboards—choir, swell, and *two* great manuals, equal in power but somewhat differing in tone. That is what we want for Bach's organ music. As a matter of tone, also, in nearly all our modern organs the great organ reeds are too noisy and clanging; they obscure the flue-work tone instead of blending with it, a mistake most disastrous to the clear definition of parts in a fugue. We can now have the clanging reeds on a distinct manual, and they should be reserved for that. And on the pedal, for the adequate playing of Bach's organ music, there should be, even on a moderate-sized organ, *two* 16-ft reeds, one of quiet and round tone, to blend with the full organ without standing out pertinaciously, the other a more powerful one, of harder tone, to play a chorale melody as a *canto fermo*, and make it stand out boldly. No single 16-ft. reed can be made to answer both purposes.

In conclusion, I would urge that while every opportunity should be taken to bring the public to a better acquaintance with and appreciation of Bach's organ music, this end will certainly be furthered by the study, on the part of players, to increase the interest of these great compositions for a modern audience, by a full use of the opportunities for variety and contrast of effect which the mechanism of the modern organ affords.

MUSICAL ASSOCIATION.

April 16, 1901.

THE CHAIRMAN.—Before we proceed to any other business there is one thought which I am sure is occupying all our minds to-day, viz., the realisation of the great loss this Association has sustained by the death of its President, Sir John Stainer. We have not had many Presidents of the Musical Association, although we are now getting to be quite an old Society; but I do not think any former President took a greater interest in or did more work for the Association than did Sir John Stainer. His loss will be severely felt by all of us, and his position will indeed be a very difficult one to fill. At a Council Meeting held to-day it was resolved to send the following address of condolence to Lady Stainer, which I will now read for your approval:—

"London,
April, 1901.

"To Lady Stainer.

"Madam,

"On behalf of the Vice-Presidents, Council, and Members of the Musical Association, and in pursuance of a Resolution unanimously passed by the Council on April 16, and confirmed by the Members at their subsequent meeting, we beg leave to tender to you and your family our most sincere sympathy for you in your recent bereavement by the lamented death of Sir John Stainer, and to assure you of the profound esteem felt for him by this Society, of which he was one of the Founders, and has been for so many years the respected President.

"We are,
"Madam,
"Very faithfully yours,

This will be signed by the chairman of the Council to-day, Mr. Otto Goldschmidt, and will be also signed by the Treasurer, Mr. Prendergast, and the Secretary, Mr. Baker, on behalf of the Council and the members generally.

DISCUSSION.

THE CHAIRMAN.—Ladies and Gentlemen, our first duty is to propose a very hearty vote of thanks to Mr. Statham for a very interesting paper. Mr. Statham's remarks will, I am sure, excite a lively and an interesting discussion. There are several eminent organists here, and we are all curious to hear what they have to say. I am certain there are several points which will bear a little criticism and discussion. In the first place, I venture to disagree with the idea that Bach's Organ Music is his central achievement; I should have thought his pianoforte Fugues quite as good as those for the organ. And then with regard to his Choral Music—surely any of us who have heard the Passion Music at St. Paul's Cathedral will admit that there is a wonderful power of expression in *that*. Take for instance the beautiful solo, "Have mercy upon Me"; that is full of genuine pathos which never fails to touch anyone who hears it. Then again in the solo in E flat towards the end, "See the Saviour's outstretched arm," there are some beautiful passages on the words "See" and "Rest," which are not only thoroughly vocal but are also full of an emotional tenderness which is quite modern in style and likely to remain so. I should like to know any organ pieces as full of beauty and natural expression as the two vocal excerpts I have named. Then with regard to the Toccata in F. Mr. Statham seemed to think this belonged to the earlier period of Bach's organ works. I think that in spite of the modulations (and they must have been very wonderful for the time in which they were written) Bach manages to maintain the figure of the Toccata very consistently and very beautifully throughout. The piece is really a Toccata, that is, a piece which is calculated to show the *touch* and technique of the performer, as well as the mastery of figuration on the part of the composer. It is something new to me to hear the B minor *Prelude* as I have always called it (the one marked *pro organo pleno*) spoken of as a *Toccata*.

MR. STATHAM.—In Griepenkerl's edition it is called a Toccata.

Dr. PEARCE.—I always thought it was a Prelude, and a very beautiful Prelude too. I fail to see anything in it of the Toccata character.

MR. STATHAM.—I quite agree with you.

Dr. PEARCE.—It seems to me to be in entire consonance with the spirit of its associated fugue all through; I should think it *must* have been written to precede that particular Fugue in B minor. And then I should be glad to know

why there should be any doubt as to the Organ Preludes actually belonging to the Fugues with which we are accustomed to associate them. We do not doubt the indissoluble union of Prelude and Fugue in the '48.' I should like to know what evidence there may be to warrant our putting asunder any two movements which Bach himself may seem to have intended to have joined together. Then with regard to the modern playing of fugues, I must say I have heard our late President play fugues for many years—I used to sit in the organ loft with him. I think his style of fugue-playing was that which was likely to commend itself to most lovers of the great contrapuntal art-design. His idea was that in the performance of an organ fugue the tone intensity should *grow* exactly as the interest of the composition itself *grows*. First we get the subject, then the exposition, then the episodes and different groups of middle entries, then the stretto where the interest largely increases, until finally the pedal and coda are reached. It seems as if the whole work grows in interest from the very first presentation of the subject to the end, and therefore I have always agreed with Sir John Stainer's method in playing a fugue that you should begin moderately, quietly, and increase the tone of the organ as you go on. This method always worked well, and was very effective at St. Paul's at any rate. Then I think Mr. Statham said something about Bach's counterpoint being, as it were, external to the subject-matter of the fugue. In many fugues, I must say, it seems to me to grow out of the subject matter. There is a beautiful Fugue in C minor—one which follows the Prelude which is almost in modern sonata form—the Prelude with the triplets. I think there, the counterpoint which accompanies the principal episode, really does very largely grow out of melodic matter originally heard with the theme itself. Of course, the E minor is an episode fugue—it almost seems to me to be a kind of big ternary form. There is a first part, a modulating middle part, and a recapitulation of the first part almost verbatim. Then I must say our late President had a great objection to quick performance, especially in large churches. I have heard him say that at St. Paul's, he always took the time slower than he would in another place where there was not so much echo. With regard to phrasing, I agree with much of what the lecturer said. Professor Prout, in his book on Form, shows that the proper phrasing does away with any bad effect likely to arise from the consecutive 5ths in the D minor Toccata. It is rather news to me to hear that there are many single notes in Bach's Organ Fugues. I cannot say I have met with very many after the first enunciation of the subject. Then, as to the use of the tuba in the A minor Fugue, I know, from his

previous writings, that Mr. Statham is very sweet on this; but with most tubas, if they are on the pressure which Willis assigns to them, you must hear the *tuba* and not the subject, I am afraid. And it really seems to me that no fugue should be started on the full organ. It is surely outrageous to hear a 16-ft. stop doubling the subject in octaves below. I cannot think of any single Bach fugue which ought to be begun on the full organ. Trios for two manuals and pedal would certainly have a very charming effect on a divided organ, such as St. Paul's or All Saints', Margaret Street. I have heard Sir John Stainer play them in this manner, and under his masterly hands they certainly had a very charming effect.

Sir Frederick Bridge.—I think we must all have been impressed with one thought while the paper was being read, and that was that to-day we must especially feel the loss of our President. Nothing would, I am sure, be more gratifying and nothing could be better or more valuable to us could we have had him here to listen to this paper and to comment on it. We know very well what his power was as an organist, and also as a Chairman or President of a meeting, and we know the admirable way in which he would have put his finger on the many weak points which I am sure he would have discovered in Mr. Statham's paper. I have made a few notes. Dr. Pearce has anticipated me on many points, but I should like to say that we owe Mr. Statham a deep debt of gratitude for bringing the subject forward. This is the sort of paper we want—a paper that concerns some important classical possession that we have, which a good many of us know something about; and we do like to hear a new view, or rather a view taken by a man who has evidently spent hours and days in the study of these things, and who has an admirable way of expressing what he thinks. I have great respect for Mr. Statham; I have known him for a long time, I have read articles by him for a long time, and I have always had considerable respect for his knowledge of the organ and organ music; but I think he has sat at the feet of Mr. Best rather too long. I knew where he had been perfectly well, I have heard those effects myself. I lived in Manchester, it is now a long time ago, but I had the opportunity of hearing Mr. Best play very often. I yield to no one in admiration for Mr. Best as an organ performer. He was a most remarkable and admirable executant, and an extremely clever man, who did immense service in the way of giving organists new views on orchestral treatment which is all right under certain circumstances, but he was not altogether a safe guide for young man of impressionable sentiments, as Mr. Statham evidently was—and I was once, for he would do a thing out of pure mischief, not because he liked it, but because

you would not like it; and I am sure that would account for some of those strange effects that I have heard. My own practice is not to attempt to play a Bach fugue through, from beginning to end, with all stops out and no change; that is not musicianly. But you must know where to draw the line. I believe thoroughly in variety; I believe thoroughly in alternation of light and shade; I agree very much with many of the suggestions which Mr. Statham made at the end. That great Toccata in F I once heard played on the orchestra at Manchester, and I learned a great deal from it. It was in 1872, at one of Hallé's concerts; the arrangement was by Eissler. I learnt one important point from it; perhaps I am giving myself a little away. But it had a grand effect. Perhaps Mr. Statham will retort, "you have a favourite show piece of your own, but you won't let me have my tuba for a minute." I must put in a protest against anything like minute scoring of Bach's music for the organ. When it comes to a proper division such as you might make in the Toccata in F, that is another thing. With regard to phrasing I do not like the G minor dished up in the style in which Mr. Statham played it. I do not think he would get the effect on many organs, and he must be a good player to get it on many pedals. I have said more than I intended; I cannot read all the notes I made, that is not to be supposed, but I yield to no man in my appreciation of Mr. Statham's desire to set before us something to think about, and I hope he will accept what I have said merely as a straightforward expression of my opinions. He has given me food for reflection, and I shall practise organ fugues more myself, and see if I cannot get some new effects, but it will not be clarinets and oboes and clarions.

Dr. Maclean.—I have but two remarks to make. One is in regard to the organ works being Bach's main works. They occupy just one-fifth of the space in the forty-eight volumes of the Bachgesellschaft edition, and though allowance has to be made for their being only in three lines, yet still this gives a rough notion of the bulk at any rate which they occupy among the compositions. Secondly, as to the references which have been made to the Bach-playing of our late revered President. I think I am the only person in this room who was at College with him. We were undergraduates together for four years, and took our Doctor's degrees at the same examination. So that I had many opportunities of watching his organ playing at Magdalen. I remember distinctly that his fugue-playing underwent a change in those four years, showing a gradual dropping of fancy effects. It was a subject in which he was much interested and often talked; and there is no doubt as to what was the trend of his convictions. When he went to St. Paul's, with its larger organ and vast

spaces, I believe that he still further solidified his style. I might perhaps add a third remark, in congratulating the Chairman, who has been put into the chair impromptu, on bringing so much ready knowledge to bear.

Dr. CUMMINGS.—I should like to thank Mr Statham, because, being perhaps the oldest man in the room, I can refer to the playing of Bach's Fugues when I was a boy. In my boyhood the fashion when playing Bach was to pull out all the stops and to keep them out. I do not think the British public should be blamed for their want of appreciation of Bach's organ music. In London there are only two halls in which there are organs suitable for playing Bach, the Queen's Hall and the Albert Hall. Fancy trying to give a performance of Bach's Preludes and Fugues in the St. James's Hall. I am glad to hear Mr. Statham's paper, although I do not agree with all his views. Much of Bach's music teems with most plaintive and pathatic phrases, and I think musicians will discover for themselves what is the right way of playing these. I hope I should not hear anybody playing a passage with bourdon and 15th. Possibly if I heard it, I might not object so much as I fancy I should. But I think Bach's music deserves all the study that musicians can give it.

Mr. SOUTHGATE.—I think as Dr. Cummings is also a Director of the Philharmonic Society he might refer the question of Bach's music to the committee of the Society.

Dr. CUMMINGS.—The Philharmonic Society is a purely Orchestral Society, and at present we are dealing with organ music.

Dr PEGLER inquired how Mr. Statham would render the G minor Fantasia on the organ in point of expression. Would he maintain a more or less subdued feeling throughout, or play it more in consonance with Liszt's pianoforte transcription to which he had alluded?

Mr. STATHAM: I will answer the last question first. I think this is a Fantasia which can be treated in very various ways. I have treated it in various ways myself, but for the most part I like keeping it rather quiet. I think the passages mostly do not lend themselves to the full organ. I think I have had the fate which sometimes meets people who make suggestions—that the side suggestions are supposed to be the central ideas. I certainly do not for one moment mean to say that I have not the greatest admiration of Bach's vocal solos. I only say I think they are not so purely vocal as Handel's, and I think the organ affected him somewhat therein. The Chairman said he hated to hear a theme given out on the full organ. But, really, what are the doubles or the mutation stops for at all? I think that is expecting the organ to be something different from what it is. You must

take it for what it is, because you cannot get the requisite brilliancy otherwise. Sir Frederick Bridge has quite misunderstood me. I never "sat at the feet" of Best. I was, from my boyhood, most independent. I was a great purist in those days, and disapproved of many things Best did. But Best did not himself care for some of the music he chose to play. He was in a difficult position, he had to amuse a popular audience with organ playing three times a week all the year round. But Best had a most serious admiration for Bach's organ music. I have heard him speak of it almost with solemnity. And I never heard him do anything with Bach's organ music which did not seem prompted by his desire to do his best for Bach. He only gave it more effect, and made people listen to it who would not listen to most organ players. I did not for a moment suggest a re-scoring of Bach's fugues. I suggested points for the use of solo stops in some fugues, but only as calling attention to a source of effect which had been neglected. But a fugue like the early B minor, for instance, seems to bear that sort of orchestral variety. I was much interested to hear Sir Frederick Bridge's reference to his way of finishing Mendelssohn's fugue, as it is the way I have always played it myself, so that we have independently hit on the same idea. I think these are all the remarks I wish to make, but I will just sum up by saying that I hope I have not given an impression that I am regarding Bach's fugues as material for instrumental effects. I only thought that they had been played in too straightforward a manner, and I suggested various little points where modifications might be made, not meaning to say that that was the central part of the question by any means. As to beginning quietly and ending loudly, that all depends on the character of the work. You might as well say that there should be a constant increase of loudness in playing movements from Beethoven's sonatas as to make a general rule of that kind for Bach's organ fugues.

Dr. CUMMINGS.—With regard to the question of using a double in giving out a fugue, I think the double is very terrible. If I were an examiner, and a candidate started in that way, I should feel very much inclined to pluck him. If Bach wanted the subject in octaves he could have written it in octaves. I protest most strongly against giving out a subject with the double.

Sir FREDERICK BRIDGE.—Did not Dr. Hopkins once express himself on the subject in print?

The CHAIRMAN.—I have only heard him express his opinion on what was added above, not on anything added below.

Sir FREDERICK BRIDGE.—I think a good deal depends on the kind of stops you find in the organ. With regard to doubles, I must say that a very soft 16-ft. dulciana would

not offend me. In the fugue in G major I should not scruple to add a double, but I would not have a huge double—some people have even a 32-ft. But that is a mere question of opinion; I think the general principle is that we ought not to try to put our own ideas into these things, but try to express what the composer has done. I hope Mr. Statham will acquit me of anything beyond a desire to promote friendly criticism.

Mr STATHAM.—I should like to add that the effect of playing on a mutation stop is not the same as playing on the piano in octaves.

A vote of thanks to Mr. Statham was then passed unanimously.

MAY 14, 1901.

THOMAS LEA SOUTHGATE, ESQ.,

IN THE CHAIR.

ON MUSICIANS' EARS.

BY MISS MIRIAM A. ELLIS.

I HAVE been asked to add further details of my observations of musicians' ears, together with some of the statistics I have gathered. It will be best to place these details first, as an introduction to this new subject.

The outer ear has long been used for the purposes of identification of criminals. M. Alphonse Bertillon's book, "Identification Anthropométrique," contains directions for the measurements of the ears, and divides the parts to be noted into the helix, the anti-helix, the tragus, the anti-tragus, and the lobe. Every ear differs, so that it has been found very difficult to reduce the rules to a practical form. The system has been adopted in England.

Having observed the ears of the upper educated classes, and studied Lavater's extremely vague surmises, it occurred to me to classify these "non criminals" by means of nature-prints of the ears. Mr. Francis Galton—whose finger-printing method I adapted to the purpose—then brought M. Bertillon's book to my notice. But I found that the "non criminals" had better developed ears than the criminals, and I had to mark off the *helix*, or rim, into more divisions, in order to identify them properly. Some of the results that I obtained were given in a paper read before the British Association in 1898, at the Bristol meeting. These have now been embodied and illustrated in my book, "The Human Ear: its Identification and Physiognomy" (Adam and Charles Black), published last December. Through friends, I had exceptional opportunities of obtaining ear-prints of those engaged in various professions and of high attainments, and I noticed that the ears of musicians

differed from the others in having a width of concha that interfered with the usual oval shape of the pinna.

The late Sir John Stainer, Mus. Doc., gave me much kind help in studying ears of musicians, for which I shall always be grateful, and it was by his invitation (as President of the Musical Association) that I undertook this paper. Outlines of his ears are in my book, as an example of the musician's ears. All the musicians he pointed out to me had the width of orifice I had observed elsewhere. Sir Walter Parratt, having a long oval ear, might seem an exception, but on measurement it will be found that the orifices are very much wider than usual in this form of ear, especially in the left ear, which is the orifice I always find slightly the widest in musicianly people. I should warn oval-eared persons that they have a greater chance of deafness than others, and should take more care of their ears, as the narrowness of orifice gives notice of weakness of the auditory nerves, and internal parts that assist the hearing.

The powers of hearing are well known to reside in the *inner* ear, and this being the case, physicians are apt to overlook the contour of the *outer* ear, while physiognomists have been content with the wildest conjectures, culled from the ancients and from Lavater's more modern researches. Many of Lavater's outlines are more like oysters than ears, and he had no system of comparison. It is just a hundred years since Lavater's death, therefore he had no photographs for collation. Nature prints are as useful as photographs for comparing the size and shape of the helix, lobe, and orifice, and the illustrations to this paper are all made from nature-prints (except Figs. 1, 3, and 9), taken by myself direct from the ear in each case, with the outlines afterwards traced in ink.

Since the shape of the *outer* ear indicates the kind and strength of the powers of hearing possessed by the *inner* ear, it is certainly worthy of careful note. There are several special forms of the orifice which appear to indicate the native powers of hearing music and of producing it. It is true that musicians cannot be had without the proper training, but how often this training is wasted on the unmusical and withheld from those who could profit by it! The ears of infants are well formed with the orifice of a distinct shape, and I have observed the musician's form in those of a few weeks old, as well as in those of a few months or years. In each case the child showed its pleasure in music. As the face grows, the nose lengthens, and the ear enlarges even more rapidly, and I have noticed that the helix, or rim, alters from time to time, although, as far as I have been able to observe, the orifice appears to remain the same. When the ear has attained the length that the nose will have when full grown, it stops

growing, apparently at about six to fourteen years of age. As it outstrips the rest of the face in growth, children are noticed for big ears. Perhaps, the saying "Little pitchers have long ears," has a physiognomical foundation! The shape of the orifice will therefore guide the parent in choosing a musical training for the child. Grinding-organs, mechanical pianos, and musical boxes should be kept from children who have really wide orifices, as such monstrous music inflicts unthought of hardships upon such a child. Although I have never had the care of children, I have always been interested in education, and in watching their development my friends have frequently asked what I noticed and given me careful assent.

We must now describe the different kinds of musicians' ears. The ordinary kind of wide orifice is three-quarters the width of the whole ear at that part, and indicates excellent powers of hearing. The wide *inlet* between the tragus and anti-tragus seems to indicate quickness of hearing whole chords and distinguishing between sounds heard at the same time. Pianists, organists, and conductors of large orchestras usually possess these forms when they are very efficient performers and leaders. When there is a wide orifice with a rather narrow but very long inlet, single sounds seem to be the chief delight, and violinists often have this form—*e.g.*, Paganini (see Fig. 9), also noted opera singers. For portrait examples, with the ears shown side face, of pianists, organists, violinists, and opera singers, *see* the *Musical Courier* (1895-97), and for conductors of varying degrees of celebrity, *see* "The Year's Music" (1899). Amongst amateurs, a delight in singing, or in hearing the singing of birds and human voices, rather than a delight in instrumental music, is very common where there is a moderate orifice and a narrow inlet. (*See* the Member of a Choir, Fig. 7.)

When the base-line of the orifice is rather straight, great acuteness in the hearing of high notes is possessed by the *inner* ear, independently of these being musical notes or not. With a very narrow orifice and long, narrow inlet, this power of hearing high notes is practically unlimited. (*See* Fig. 13.) The owner of these ears is quite unmusical, but has heard the highest notes ever offered by science as a test of the human powers. This peculiar power is also found so often among composers, that whenever a certain straightness of outline occurs in the other forms, we may expect to find a potential composer in the owner of the ear, if not one already known to fame. (*See* Figs. 3, 4, 5, 6.) Amongst noted organists whose sacred music has become known, this straightness is often in a slanted form, to permit of the wide orifice running right into the wide inlet. The point of the anti-tragus appears to be nearly smoothed off, in fact.

There are, of course, composers without this form, but on further examination it will be found that this is due to the other qualities of the musician being so accentuated that the power of hearing acutely high notes is not the special point in their nature. The *inlet* in composers' ears is, however, generally short and wide, and somewhat slanted.

Where the *inlet* is both wide and long and goes nearly straight down, there seems to be an inner capacity of the owner to accept musical sounds and to reproduce them with marvellous facility on the piano or the organ. This is a special power, and, unless the *orifice* is wide also, it may exist without original powers. These pianists do indeed usually compose also, but their compositions are unconsciously echoes at best, if not plagiaristic. But with a wide *orifice*, the performers will often compose very agreeable original music.

Liszt had a very wide right ear, straight at the base of the orifice, with a point marking the place where the end of the inlet came under the tragus. He generally wore his hair over his ears, but in one of the portraits from a photograph in the *Musical Courier* (November 18, 1897), the hair is nearly off the lower part.

Wagner's right ear was wide, and the orifice was curved at the base, showing a moderately wide short inlet.

Sir Frederick Bridge's left orifice is very wide, and the base is nearly straight, going into a wide inlet that ends in a point, almost level. It is the typical organist composer's orifice, of the best kind.

Brahms's left orifice was very wide, and rounded at the back and base, with a moderately wide and long inlet, slanted upwards till the lowest part is level with the base of the orifice.

Chopin's right orifice was wide and gently curved at the base, the inlet short and wide, its end level with the base of the orifice in the way seen in many of the celebrated composers.

Meyerbeer's left orifice was rather wide, with a nearly straight base, and a long narrow inlet, slanted like Sir Walter Parratt's.

Schubert's right orifice was wide and rounded, with a short wide inlet, slanting downwards. This is in a portrait from a painting, and seems badly drawn.

Most of the ears in the older engravings vary too much to be relied upon, but in the case of Mozart there is a certain resemblance amongst the best portraits. I have examined about a dozen, and even in childhood the wide ear is shown. I have taken the orifices from the most authentic pictures, and as they are undeniably of the musician's shape we may accept them as probable. (*See* Fig. 3)

I have consulted numerous photographs of savage races as well as of civilised ones, and where the ears are not disfigured by native custom, the shapes were as individual as any others. The width of the ear follows the width of the outline of the profile of the jaw, and its length follows that of the nose from between the eyebrows to where the nostrils meet the upper lip. The negroes have wide ears and are counted musical.

Some terra-cotta votive ears, belonging to Roman days, are at the University Museum, Oxford, and others are at the Bristol Museum. They appear to be carefully moulded portraits of the once-afflicted ears. Every one of them suffers from a small or a narrow orifice, carrying out my suggestion that small or narrow orifices go with weaker inner powers of hearing than where the orifices are wide. The modern votive ear-tablets of silver or wax are manifestly made by the score for sale, and the orifices are fancy articles altogether, except where some artistic effort has been made to obtain a handsome ear as a genuine model for customers.

It would be convenient to have some clue to the native powers of the inner sense both for hearing and for music, and the shape and width of the orifice will be found very useful if both ears are carefully studied and collated. But nothing in the course of training the musical powers appears to have any effect on the *shape* of the orifice, which only indicates the kind of native inner sense of hearing and whether it is naturally capable of receiving musical training and in what direction this will be the most successful. Where the *left* orifice is the best shaped and the widest, the training will take the longest and will produce the best musicians. Where the *right* orifice is the largest and the best formed, there will be great facility in youth, and by judicious training enough knowledge and practice can be got to obtain success; but something will certainly draw these people aside from their path after a time, because the powers of musical attention will wane of themselves, sufficiently to allow them to be distracted to other pursuits. In some cases the performer has become a teacher, a manager, or a director, without being also a conductor. I have tested these three kinds of careers in portraits and biographies over and over again. I have also observed that my amateur musical friends gradually become more or less musical after five-and-twenty, according to the relative shapes of their two ears.

A word must be said as to heredity in the shapes of ears, a subject fully treated of in a chapter of my book, and which I first brought into notice at the British Association (1898). One orifice of one parent will be repeated in the *opposite* ear of one of the children, and one orifice of the other parent will

be found in the same child's other ear. It is generally the eldest child that "takes after" both parents in this remarkable way. If the mother has wider or narrower ears than the father, the ears of most of the children appear to be modified in form by hers. I must refer readers to my book for numerous illustrations, as it can be easily consulted in the Reading Room of the British Museum. There is nothing in the shape or size of the ear or the orifice to show race or sex; it is simply in proportion to the length of the nose and the shape of the jaw, as I have mentioned before.

I subjoin an analysis of a hundred ears, taken from the *Musical Courier* (1895-7), wherever the portraits are directly reproduced from photographs. I have only been able to obtain *one* ear in each case, therefore these are literally a hundred ears, not a hundred pairs of ears. They represent musicians of varied nationality and celebrity, but for obvious reasons I have not given their names:—

4	Composers.
22	Pianists.
23	Singers.
10	Violinists.
29	Organists.
9	Conductors.
3	Specialists (1 flautist, 1 harpist, 1 mandolinist).
100	Ears of Musicians.

Orifices.

76 wide (28 were very wide), 24 moderately wide.

Inlets.

59 wide (28 were very wide), 25 moderately wide, 16 narrow.

General Deductions.

Composers have very wide orifices and generally very wide inlets.

The best pianists have very wide orifices and wide inlets.

Most good singers have wide orifices and narrow inlets.

Good violinists have wide orifices and narrow but very long inlets.

Organists have the orifice slanted into a wide inlet, pointed at its base.

Conductors have wide orifices and inlets of any of the above shapes.

The rest of this paper is the part which was read for me by the Secretary of the Musical Association at the meeting of May 14, to whom my thanks are due for the trouble and interest he took in the matter. The illustrations are outlines taken from nature-prints (except Figs. 1, 3, and 9), and are analysed and shown to be examples of the various forms of musicians' ears, which differ according to their native capacities. I give it in the original form, as it shows I referred to the auditory nerves in the second sentence, merely claiming that the shape of the orifice "indicates" the powers of the *inner* hearing.

The average shape of the pinna, or outer ear, is somewhat oval, with a large lobe, and a moderate orifice or concha, which incline to width or narrowness according to the powers of hearing of the possessor. (*See* Fig. 1.)

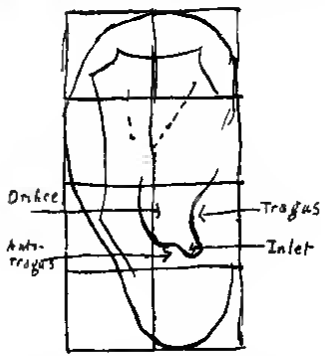


Fig. 1. Pinna, or Outer Ear.

The shape and size of the orifice—the concha or hollow of the ear—especially indicates the powers of the auditory nerves, and the strength of the adjacent inner parts (the Eustachian tube and inner nostril) to resist deafness from cold, disease, or old age. The outline of the orifice is formed by the tragus and anti-tragus, and the *inlet* between them. (*See* Fig. 1 again.)

A wide orifice pushes back the lower part of the ear and entirely alters the average oval shape, frequently shortening and widening the lobe. (*See* Fig. 2.)

Fig. 2. Wide orifice in wide ear

With this large wide orifice, a good power of hearing seems always to be owned by the possessor of the ear. Such persons seldom become the least deaf until well over seventy or eighty. As ears are never exactly alike in a pair, there is always one ear slightly less wide in the orifice or in the *inlet* between the tragus and anti-tragus than the other, and it is sure to become the first to be "hard of hearing." Where the orifice, on the contrary, is narrow, slight deafness frequently begins even before middle life.

We must define a *musician* for our present purpose as a person who can distinguish between musical sounds, and can reproduce them, either by playing upon an instrument, or by singing, or by writing them down in accurate notation. Those who can distinguish musical sounds accurately without being able to reproduce them, may be called "potential" musicians, a term used on one occasion by the late Sir John Stainer. But the necessity of reproduction generally goes with the power of hearing these special sounds.

Music is widespread, and we must also define the well-known English person who is "musical." A *musical* person is one who will listen to music with more or less pleasure, but will be unable to reproduce it in any way, however badly, and will require several "hearings" to recognise an

easy tune. He will not distinguish between good and bad music—in fact, he will often prefer bad music because it does not require any attention. He will actually not hear the component parts of a chord, nor their inner progression, and will boast openly of his preference for what he calls "a good tune!" Classical music he calls "exercises," and says he prefers "real' music that has "something in it!" Amongst the lower classes, this *musical* person is fitly ministered to by the grinding-organ and the mechanical piano. The American organ is a more expensive variety of entertainment to such ears in co-operative workmen's clubs. Amongst the upper classes, a delight in a blatant brass band, where each instrument is out of tune with the rest, betrays the listener's incorrectly-shaped orifice.

The *musician's ear* has a wide orifice, with a large space between the tips of the tragus and anti-tragus. The *inlet* between the two latter is very short, and often slanted up until it is nearly level with the base of the orifice. (*See* Fig 3. Ears of Mozart.)

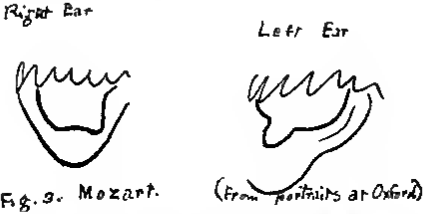


Fig. 3. Mozart. (From portraits at Oxford)

The two ears of Mozart show very beautifully the two forms of the *musician's ear*. They have been drawn from the best portraits at the Hope Collection of Portraits in the Bodleian Library at Oxford, and as they fit the face they are probably accurate. This is shown by the outline, which follows the outline of the jaw and chin, which are themselves of a shape that indicates that the ear must be wide. The wig of the period hides the upper part of the ear.

We can prove that such ears could only belong to a musician by comparing them with those of the late Sir John Stainer. (I should mention that it was with his expresss permission that I give these outlines, together with those of his friends, Professor Sir Hubert Parry and Sir Walter Parratt.) (*See* Fig. 4. Ears of Sir John Stainer.)

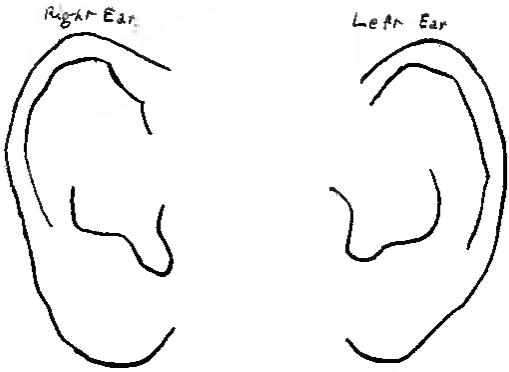


Fig. 4. Sir John Stainer Mus. Doc.

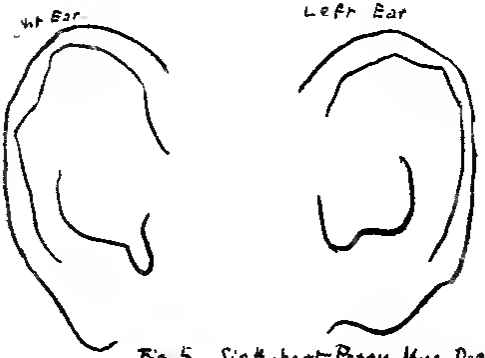


Fig. 5. Sir Hubert Parry. Mus. Doc.

The orifice and inlet of the right ear correspond exactly with those of Mozart's left ear, and those of the left ear with Mozart's right ear.

A variation of form is found in the ears of Sir Hubert Parry. (*See* Fig. 5. Ears of Sir Hubert Parry.)

Both orifices are wide, but the inlet in the right ear is only of medium width, preventing full access of sweet sounds to that ear, and in the left ear the wide and shapely inlet points downwards instead of slanting upwards. This shows a limitation of choice of music, owing to a few gracious sounds being unnoticed in spite of great quickness of hearing.

A still more remarkable variety of form is shown in the ears of Sir Walter Parratt. (*See* Fig. 6. Ears of Sir Walter Parratt.)

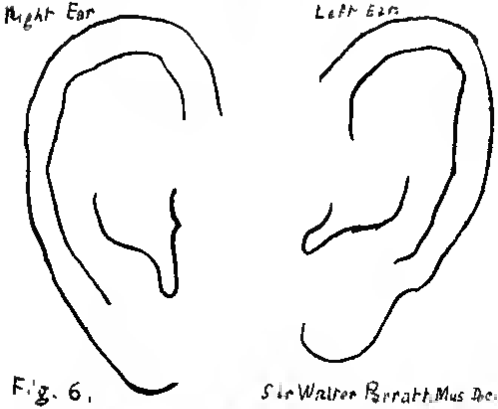


Fig. 6.

The ear is long and inclined to be oval, yet the orifice is wide in proportion to the ear; and though the inlet is long and narrow, yet the top is somewhat wider. In the left ear the inlet slopes up so much that the whole ear is slightly widened to make room for this shape, and the point of the anti-tragus is a mere curve, whilst the base of the orifice is nearly flat. This gives acute hearing for musical sounds, whilst other sounds are disregarded, as there is not enough "hearing" to spare for them.

This long narrow inlet is seen in vocalists. (*See* Fig. 7. Ears of member of a large choir.)

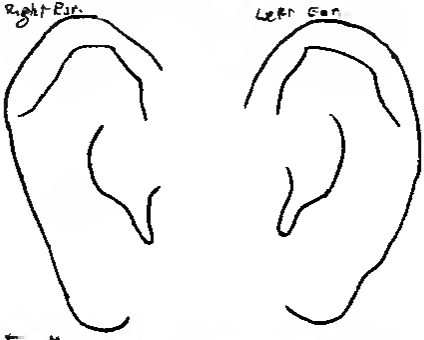


Fig 7. Member of a large choir.

There is a sort of likeness in this left ear to Sir Walter Parratt's right ear, but the orifice is not so wide. It belongs to a singer in a large choir. Another member of the same choir possesses entirely different ears. (*See* Fig. 8. Ears of second member of the choir.)

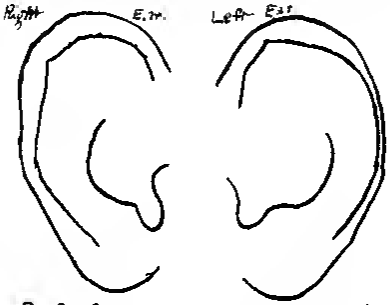


Fig 8. Second member of the choir.

The left orifice shows the nature of a musician, but the right orifice counteracts it by being so much narrower, whilst the inlet, though wide, goes nearly straight down—it is therefore likely that singing would take the place of instrumental performance, as being easier to an amateur.

In a careful profile portrait of Madame Alboni, the renowned singer, the lower part of the ear is shown. The orifice is very wide, but the inlet is narrow, though as it slopes up nearly level with the base of the orifice, the whole ear gains in musicianly power. Perhaps that was the secret of the extraordinary charm of her singing, which sounds otherwise incredible as handed down in history.

A wide orifice sloping suddenly into a short wide inlet, is found often among organists and professional pianists, according to modern photographs. Where the inlet is not so wide, stringed instruments seem preferred. But wherever the musician is also a composer of agreeable and successful music, the base of the orifice is generally found to be rather flatter than in those who are only, or chiefly, performers.

Paganini was a marvellous performer, and if we can trust the portrait, his ear would bear this out. (*See* Fig. 9. Orifice of ear of Paganini.)

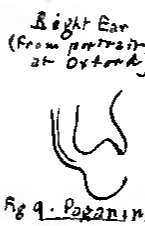


Fig 9. Paganini.

The narrow inlet is raised so high that its point is level with the base of the orifice, in the way that the wide inlet often is in good composers. We cannot be certain that his ear is rightly drawn, but such a shaped orifice is not to be seen in any other portrait of the many thousands I have examined, so that we may give it the benefit of the doubt. Paganini's ears must have been as extraordinary as this one, in any case.

Among those who enjoy good music and attend concerts frequently, without being more than the merest amateur performers or singers, will be found a pretty rounded form of orifice and a rather narrow inlet. (*See* Fig. 10. Ears of a concert-goer.)

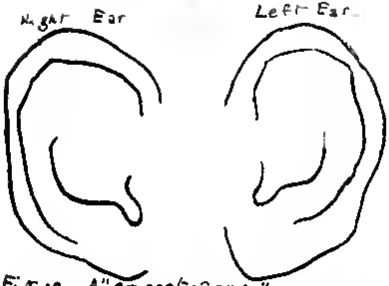


Fig 10. A "concert-goer."

The right orifice is the widest, and where this is found the owner relaxes by degrees in attention to music. Among ladies, the usual excuse is their being "too busy," although far busier folks, whose orifices are less unequal in width, find time for the welcome of

"linked sweetness long drawn out."

The innate love of music survives to old age, in spite of all obstacles, if there should be one ear that has a very wide orifice. (*See* Fig. 11. Ears showing innate love of music.)

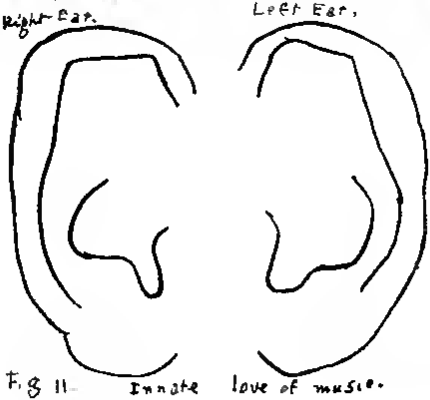


Fig 11. Innate love of music.

Here the right orifice being less wide than the left and the inlet narrow, music was pushed aside, in this case by a Quaker up-bringing. In middle life the scruples being removed on the owner joining the Church of England, the left ear was allowed to indulge in its delight in music, although performance was now impossibe. The owner of this wide orifice and wide inlet especially enjoys classical music, and dislikes bad music without knowing why She also has as good hearing in this ear as in her youth, though the other is very slightly touched by advancing age.

When the line of the base of the orifice is almost flat there seems to be particularly acute hearing. (*See* Fig. 12. Ears of an aged amateur musician.)

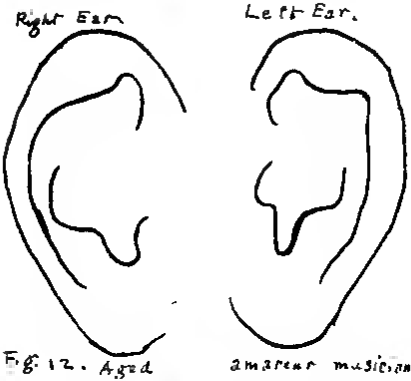


Fig. 12. Aged amateur musician.

These are the ears of an amateur musician, whose hearing, at over eighty years of age, is still more acute than that of most young folks. The right orifice is that of a musician, the left is also wide, but the long straight narrow inlet betrays the amateur, whilst the straightness at the base of the orifice shows the painfully acute hearing.

An absolutely unmusical person ought, by this code, to have narrow orifices and very narrow inlets. If the base of the inlet is straight, the hearing should be acute for high sounds I have been fortunate in obtaining the shape required, and the owner, who can hear exceptionally high

acute sounds, does not like music. (*See* Fig. 13. Ears of an unmusical person.)

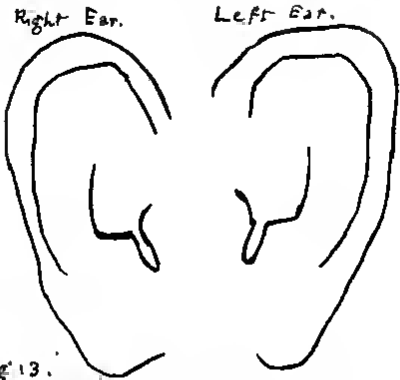


Fig. 13.
Unmusical, but acute hearing.

I have also met with another case, not quite so pronounced, where the owner prided herself on being able to hear the bat's cry, and she assured me that ninety-nine per cent. could not hear it. In this I think she is mistaken, as even *musical* persons can hear it, and *musicians* do not find the particular pleasure in hearing that shrill squeak which the unmusical appear to obtain from it.

It is well known that people frequently hear differently with each ear, and this bears out the suggestion I offer in this paper that the shapes of the orifice and the inlet indicate different powers of hearing.

It would be well to take special care of an ear with a narrow orifice (as of the sight of a weak eye), as the hearing is more liable to suffer on that side from chance injury or cold. I may mention that the amateur musician of eighty was once for two or three days suddenly deaf. The cause was over-fatigue of her nervous system, and, with proper remedies, her hearing returned as acute as ever. If she had known that a narrow inlet indicated a predisposition to over-fatigue of the auditory nerves, she would have been able to avoid that transitory deafness. It would be valuable to our young singers, who more often have narrow inlets than

wide ones, to know how to take care of their hearing. I have not been able to obtain any authentic picture of Beethoven's ears, but perhaps the inlet of his left ear was of this narrow kind, for it is said that his deafness arose from having worn out his auditory nerve. In one of his letters he said he had heard so much more acutely than other people, that he seemed surprised his hearing should fail him. As the outline of the ear corresponds with the outline of the jaw and chin, as I have already had occasion to mention, we can surmise Beethoven's ear was wide, with an orifice that had a straight base. I have noticed that where *both* the inlets are wide and rather short, the hearing is strong up to extreme old age.

There does not seem any reason for one ear being different from the other, and still less reason for the following deductions I have drawn from practical observation. In right-handed people, I find the right orifice shows the kind of way in which they will regard music at first, and the left orifice will show how music will be regarded and carried out by them in the rest of their lives. We must all know excellent amateurs whose orifices are of unequal kinds, and musicians who cannot take the high place their talents deserve because of hindrances to instruction in youth. Like soldiers, who must be of a certain height, musicians must have orifices of sufficient size to be successful in their warfare with life for the capture of sweet sounds.

DISCUSSION.

THE CHAIRMAN.—Ladies and gentlemen, I do not know why, unless by accident, I should find myself in the chair on this occasion, because I have certainly no claim to a special knowledge of the subject. There is, however, one thing that I have noticed, and that is how very considerably the shape and contour of people's ears differ. Perhaps you do not notice, until possibly you have your attention specially directed to it; but after this meeting, you will, I dare say, be looking at your neighbours' ears and then will notice how they differ in size and shape, and how far back some are set, and so on, I have drawings before me showing this much. I am happy to see and notice that, curious as the various shapes and sizes are, at least it can be said that musicians' ears are neither long nor pointed. There are probably some here who may have something to say on the subject, and I hope we shall have an opportunity of discussing the matter. I see one distinguished doctor here—Mr. Lennox Browne—and I am sure you will be happy to hear what he has to say. But

there are two or three things that have been stated on which I should like to offer a few remarks First of all as to the potential capacity of musicians being judged by the shape of their ears. I must confess I have usually looked on the matter as one of natural gifts and of training rather than depending on the contour of the particular apparatus with which nature has provided us to hear music, but, perhaps, Miss Ellis will tell us if she considers it is not so. If that be so, and there are enough examples from which to form a safe deduction without drawing hasty generalisations, we might tell at once when children are born whether they have a chance of becoming musicians What an advantage it would be! All the unfortunates who never do anything satisfactory beyond paying for their master's instruction could be brushed aside, and the promising ones could be sent to the R.A.M. or R.C.M.; no doubt we should thus get much better results than at present. If the shape of the ear helps us to determine this, then I think this paper will not have been written in vain. I see a drawing there of Mozart's ear. Of course, most persons who have read anything about Mozart's personal appearance, and those especially who have been to the Mozarteum at Salzburg must have noticed this I always supposed this curious drawing to be an exaggeration; perhaps it is not, but it differs enormously from the general form of the ear. I should like to ask Miss Ellis, who I hope at the end of the discussion will have something to say to us, whether she has had her attention called to the ears of barbarous people—I mean people who cannot appreciate Bach's fugues, or Beethoven's sonatas, or Wagner's operas—the ears, say, of Zulus or Hottentots, will she tell us whether there is this great diversity of shape to be found there as in the case of the civilised people she has examined? It certainly seems very curious to hear that as one grows the outer contour of the ear can be altered by anything that happens, but, as I understand the paper, theology has the power of altering the shape of the ear. If so, it would be very desirable to determine with certitude just which is the right and proper kind of religion, and then we might have our ears properly and theologically shaped accordingly. With regard to the limits of hearing, so far as I remember the lectures that were given many years ago, when I was quite a young man, by Tyndall at the Royal Institution, I think he showed that the limits of hearing depend on the larger or smaller number of the Corti fibres, which vibrate in unison to the pitch of the various sounds we hear. I think I can remember an illustration which Tyndall gave. He had a siren, which was set going on a very low note, and he said, 'As the sound rises I want anyone who is no longer able to hear the sound to hold up his hand. After a time an individual in the

company held up his hand, though the rest of us could still hear. Later on others and others held up their hands, and at last the note became so high that I too was deaf to the sound; but there were some who could hear still higher notes. Perhaps someone will tell us whether this power of hearing is determined by the apparatus inside our ear, or by the outside contour. Then as to deafness; if I rightly understand the paper, it seems that though deafness may arise from various mechanical injuries or from cold, it also in a measure depends on what happens to the outside portion of the ear, as well as to the complicated apparatus inside. I should like to know whether I rightly appreciated that or not. Now, before calling on Miss Ellis for her reply I will invite discussion, and first should like to hear what Mr. Lennox Browne, who is a distinguished aural surgeon, has to say on the subject.

Mr. Lennox Browne.—It is quite true that I am not now a member of this Association, but I am happy to say I was an original member and a regular attendant for some years. I remember Mr. Ellis, to whom educators and musicians alike are so much indebted. Consequently, when I received an invitation to hear a paper from Miss Ellis, I gladly availed myself of the opportunity. I must, however, speak as I am inspired, and I am sorry to say I disagree with the author *in toto*. In art we must speak what we feel to be right, and neither hard nor soft words will alter facts. The very premisses of the communication are novel to me. I have always believed that the outside ear is simply a receiver, the middle ear the conveyer of sound, and the inner ear, to which you, Mr. Chairman, alluded, and your remarks were perfectly correct, is the chamber in which is situated the auditory nerve, that is, the nerve of special sense. The fact is, that really until this evening I have never heard of any anatomical difference in the shape of the external ear of any musician, whether a composer, instrumentalist, or vocalist, any more than we can find anything distinctive in the vocal chords of a singer. I have had the opportunity of seeing the vocal chords of Tietjens, Patti, Melba, and hosts of others. I believe there are some imaginative doctors, especially in the "gay city," who can tell whether a person has a singer's voice and even the range and quality by looking at the vocal chords. I have never seen it myself, nor do I believe there is any such difference.

The Chairman.—I should be glad if Mr. Lennox Browne would go on to tell us whether an examination, not only of the vocal chords, but of the other parts of the throat, such as the soft palate, would give any indications of the prospect of that particular individual becoming a singer.

Mr. Lennox Browne.—As an answer to your question, Sir, I would say that I remember having a very wonderful girl

brought to me from Florida, a child who, it was supposed, was going to be another Patti. I said, so far as the throat is concerned, "There is no reason why she should not, but there is not the least reason that I can see why she should." When you come to the soft palate you come to muscles that are under control, and I remember that Mrs Weldon, who, with all her eccentricities, was a very wonderful woman, in criticising a lecture of mine said, "You must get the soft palate of a singer as hard as a bone, the soft palate is the biceps of the voice which must be hardened." But you do not find any alteration in the vocal chords. In the same way I should say with regard to the eyes of painters, though I believe the blue eye characterised Turner, William Hunt, Millais, and a number of other living painters, noted as colourists, still there are many fine colourists who have not blue eyes. So I say there may be something in Miss Ellis's contention in the peculiarities of the external ears of these great composers, but I do not think it had anything to do with their being musicians, because I think you would find these conditions in people who are not musicians, and many musicians whose ears did not conform to Miss Ellis's type, certainly with regard to the inequality of the ears. Though we are supposed to be symmetrical beings, as a matter of fact we are not. There is hardly a person living in the civilised world who is perfectly symmetrical in features—especially in the nose, for example. There are many people who have a symmetrical soft palate, and symmetrical ears and eyes, but I certainly have never cared much whether the ears were symmetrical or not, because we look inside the ear, and rarely, except in the case of deformities, look at the outside. Although I can hardly admit that I should have been more convinced of the accuracy of Miss Ellis's views as to the influence of the shape of the external ear, her remarks would have carried more weight could we have seen photographs of the actual ear instead of rough diagrams from paintings or models. For instance, the man who took Paganini's likeness probably paid but little attention to the details of his ears. The ear is a feature particularly neglected by painters—more than any other part of the face—and it, to my mind, quite spoils a portrait to see the careless way the ear has been dashed in, so that these old engravings are not to me of the value they would have been if they were photographs or models. You have to consider the ear from the position of the instrumentalist or composer. The moment we speak of a composer we think of Beethoven; Miss Ellis alluded to him. Beethoven is supposed to have had three periods. His last I have read was crude, hard, and unsympathetic because of his deafness. On the other hand, many modern critics regard this last period as his

most mature and most perfect. I have heard he did not write well for the voice because he was deaf; but I have heard the same of Wagner, who was not deaf. Certainly the whole history of Beethoven shows that the musician's ear is something that cannot be analysed; it is an impalpable gift bestowed by the Almighty, and not dependent on any physical consideration of the outside ear. As to the ear of the instrumentalist, in the paper I read on "The Voice as a Musical Instrument" before this Association a quarter of a century ago—I am not sure, Sir, whether you were present, but I remember several now present who were—I recommended for the training of the voice that singers should play a stringed instrument in order to train the ear, and it is a curious thing that it is the stringed instrument players who most of all are liable to suffer in the performance of their work from deafness. Their case is very similar to that of a sportsman, who will often get deaf in the ear that is most exposed to the barrel side of his gun. Players on wind instruments are much more liable to suffer from affections of the throat or chest, but I remember a case in one of two flautists who played side by side. He told me he was constantly getting the note of his colleague's part into his ear, and that this interfered with his perception of his own part. In the case of the singer the importance of hearing correctly is very great, as you all know. If a singer sings flatter than he should, he may be simply out of condition, but if he sings sharp it demonstrates an impairment of the correctness of his perception. I had to translate a book written by a Frenchman on Deafness, in which he said there was a proverb that a man shouted like a deaf one. In my translation I put a note that that proverb was not known to Englishmen, and that a person deaf from what is called conduction usually speaks softly, because he hears sounds louder than they are, while a person deaf from disease of his auditory nerve often speaks at a characteristically high pitch. This explains the remark about Beethoven that Miss Lilis made; he heard sounds with extreme keenness—what we call hyperacousis—and I have seen cases of musicians who have in their brain a musical phrase or sound—something perhaps of their own invention, which has troubled them just the same as noises in the ear will trouble the deaf people who are not musical. I have met many musicians who suffer from a highly sensitive nerve to certain sounds, that is the penalty I suppose of education. The following anecdote illustrates the importance of hearing to the singer. Mr. David James, the actor, had a very beautiful singing voice, but on one occasion he found it out of order. I discovered nothing whatever wrong with his vocal organ, but there was a high degree of deafness, caused by impacted wax. This removed, his voice was at once restored. A still more celebrated musician—a great conductor—

known to all of us, came to me. Those acquainted with him are aware what a highly sensitive and impressionable man he is He was in a state of despair. He said with great excitement his hearing was going; he could not conduct his orchestra. I found the same cause. The patient on regaining his hearing almost threw his arms round me, saying that I had saved his life; but it did not prevent him from coming to me again six months after, in the same state of excitement, to be again relieved from the same slight ear trouble. There are several people who have a musical ear who are deaf to outside sounds. The late Lord Ernest Bruce was a great theatre-goer, but was so deaf that you had to shout in his ear, nevertheless, he could tell—at least he expressed the opinion—whether a singer was singing as well as usual or not. The tendency of my remarks you will see is to show that we must first know the full physiology of hearing, and then must remember that the condition of hearing depends not only on the health of the individual, but also on the health of the organ itself.

Miss Chamberlayne.—I should just like to add that since humanity was created there have been no two persons alike. There have been no two ears quite alike; so it may be impossible for two persons to hear alike.

Mr. Wedmore.—If I might be allowed to offer a few remarks regarding the physics of hearing, there are one or two points Mr. Lennox Browne made on which I should like to say a few words. I was recently a demonstrator to Dr. Silvanus Thompson, and so am in touch with recent developments in this connection. I may say that the theory of Corti's fibres is open to revision. There are a few facts which do not agree with this theory, and there are opposition theories already formulated. The whole matter being not quite understood, any new views properly put forward in a scientific manner are likely to be of great value. I must say I was disappointed this evening to hear so many deductions and so few facts. If we have a person with a scientific reputation behind the deductions they may be accepted, but when the deductions are advanced without the facts, one is obliged to ask for the facts. If this view of a connection between the shape of the external ear and musical ability can possibly be supported by statistics—though I see no connection on physical grounds, and Mr. Lennox Browne has stated the same on physiological grounds—if the theory can be backed by statistics, it becomes of great value both to the physiologist and to the physicist. So I hope Miss Ellis will not be discouraged, but rather try to advance her theory in the way I have suggested. There are scientific magazines that would be glad to receive a statistical article on the subject. While I am on my feet I should like to ask if Miss

Ellis can throw any light on a peculiarity of my own hearing which I have only recently discovered and which seems quite inexplicable. I am fond both of whistling and of playing the piano, and curiously my hearing for whistled notes is a fourth out with my hearing for piano notes. While my whistling, though a fifth high, sounds in perfect harmony to myself, and I can follow with facility complicated changes of harmony, the result to others is excruciating. Curiously too, I can whistle correctly above G! I can play a note that is sung, or whistle a note that is whistled correctly, but I cannot whistle a note that is played or sung except by calculation.

Mr. Lennox Browne.—I fancy the compass of whistling corresponds to the compass of the voice. Perhaps our friend in whistling is beyond the compass of his singing voice.

Mr. Wedmore.—I can whistle over three octaves.

Chairman.—I should like to say a few words on one or two remarks of Dr. Lennox Browne I hardly think Miss Ellis would venture to say that for the three periods of Beethoven's work the shape of the ears was altered With regard to some of his music of the last period, there are a good many musicians who think that though he could, of course, hear with his eyes, yet if he had afterwards heard with his ears what he had written he might have modified and re-written some of it. Now, has not ear-training very much to do with the whole of this question? There are persons musically inclined who like music just in an ordinary way to the end of their lives. But sometimes these persons are moved to listen to "good" music, then to take an interest in it, then to enjoy a modicum of culture, and, at last, to become enthusiastic musicians. Sir George Grove is an instance; he only liked music a little till he went to the Crystal Palace. You all know what a deal he did for music afterwards. Surely it was simply training and not an alteration of the ear in his case A great many persons think that our musical system is perfect and complete in all ways I am not inclined to accept that position myself. You know that the systems of the Hindus and Arabs, and some other nations, include much smaller intervals in their scale of musical sounds than ours, and they can detect differences of pitch that we hardly notice The Indians employ something like twenty two intervals in their octave. Is not this power merely a question of training? If we had been born in India, doubtless we could do it as well as they; whereas, being trained in European music, we measure it by European standards, and appreciate nothing else. I was struck by that remark of Mr. Lennox Browne about singing flat and sharp That is my experience also People sing flat when they are not well; but when they sing sharp they had better leave off- they are

chronic ear invalids and are done for. As to hearing sounds or musical phrases in our head, it is quite common to hear singing in the ears. If one is not well we can hear in our heads, so to speak, all sorts of music. This clearly can have nothing to do with our ears, it is mental. Mr. Wedmore said truly that in trying to arrive at a conclusion in such a matter as this we want plenty of facts, actual photographs and statistics, because it is very unsafe to draw deductions from the ears of any one man, such as Beethoven, Stainer, Parry, or Mozart. We must get a large number of cases, and then we shall be able to judge whether a theory of outer contour is worthy of consideration. As has been pointed out, if we had had enlarged photographs we might have come to some conclusion as to how much and in what way the contour of the outer ear really has to do with music. I will now ask Miss Ellis to favour us with some remarks on what has been said on her paper.

Miss Ellis.—I should like to say that these pictures, with the exception of Figs 1, 3, and 9, were all taken direct from nature. So the facts there are really facts, and my deductions are the result of my going through hundreds of authentic pictures of ears for this paper, and very many thousands in the course of preparing my book, never finding one of my deductions fail. But I did not know you wanted statistics, or I could easily have given a paper on them. I have also studied the whole ear for many years past in relation to identification and physiognomy. It is not that the shape gives hearing, but it gives the *indication* of the kind of hearing. It is quite true that babies show at once whether they are musical or not. It is not easy to train the owner of an unmusical orifice to be a musician. As to hearing twenty-two musical sounds in the octave, I could always hear them without any trying, I suppose because both orifices and both inlets in my own ears are wide, and I have found this will indicate attention to all kinds of musical sounds. I have looked at photographs of all the nations in the world, and I find one cannot tell by the shape of an ear whether it belongs to any particular nation, because they vary according to the owner's particular powers. I have drawings of black and white and brown people. I did not know you wanted these facts; but I had collected them and made my deductions from them. I brought these specimens because they were striking illustrations of the subject; I thought they would show they had facts behind them. You often observe that a face is intelligent, though you may not know what particular details indicate the intelligence, and you treat your children in accordance with those indications. The ear is often not fully grown till about fourteen years of age. You can tell what kind of music a child

will learn best by the indications afforded by the shapes of the orifices and the inlets. If the right ear is wider than the left they will get on much better with their music while they are young, but they may not stick to it; if on the other hand the left ear is wider than the right, they may seem slow while they are young, but they will develop later. These different forms do not seem to hear music in the same way. It is really a sort of physiognomical operation, and I have never known it to fail in a single case. I have looked through hundreds and thousands of portraits, particularly all the photographs I could find.

CHAIRMAN.—I shall have to ask you now to move a vote of thanks to Miss Ellis. Her theory is that as the face is the mirror of the mind, so, if I understand rightly, the contour of the outer ear is the mirror of the internal mechanism with which musicians are specially gifted May I suggest that in preparing her paper for our volume of "Proceedings," she enlarge it a little, and give us some more facts, together with tabulated deductions, and show how the ears of musicians differ from the non musical.

Mr. J. PERCY BAKER.—It is only just to Miss Ellis to mention that before this meeting she, without knowing my particular branch of the musical profession, informed me that I had the "organist's ear." I am bound to say that her diagnosis was perfectly correct.

The vote of thanks was then passed unanimously.

JUNE 11, 1901.

A. H. D. PRENDERGAST, Esq., M.A.,

IN THE CHAIR.

"*CHROMATICISM*" *IN HARMONY.*

BY HERBERT WESTBURY, MUS. BAC., LOND., F.R.C.O.

MR. CHAIRMAN, LADIES AND GENTLEMEN,—Before I begin my paper, I wish to say how highly I value the privilege of putting my ideas before you on this occasion. As regards my subject, I might say that I have given it a good deal of thought for a long time past, and it is one which I should probably not have worked out but for the kindly encouragement at the outset of your late lamented President, Sir John Stainer. I may also say that your esteemed Secretary took me by surprise some ten or twelve days ago by asking me if I were prepared to come forward at this time. I was not altogether prepared, but I shall endeavour to do my best.

This, then, to some extent is my excuse if you should find my paper lacking in coherence, or sufficiency of examples, the collecting of which I had left to a more convenient season.

It requires some courage to bring forward one's ideas on so controversial a subject as chromatic harmony has proved to be in the past, but there is perhaps one consolation, however, that it is, I believe, on quite a new aspect of the subject that I am here to speak, and if this may be the means of taking your critical aspect somewhat unawares, I shall be only too delighted. Let me say that I do not for one moment believe in introducing controversial matter into a student's text book. I should certainly advise every student to study some systematic work on harmony and modulation, and also to gain facility both in students' and composers'

counterpoint, before he avails himself of the freedom of present-day writing, *the chromatic possibilities of which might be systematized into what I would call* COMPOSERS' HARMONY. In composers' counterpoint we become acquainted with the possibilities of part-writing as it actually exists to-day. In composers' harmony, one should get to know something of the wonderful co-relationship of keys, as exemplified in the enlarged boundaries of modern tonality, and in the use of the constituent chords appertaining to these keys; and this subject, I venture to believe, can be conveniently studied by taking the principle of chromaticism as a basis.

Several attempts have been made in the past to systematize the relations between the diatonic and chromatic elements. We have had the system of Dr. Day built upon an imagined coincidence of the ordinary system of superimposed thirds with the product of that acoustical phenomenon known as the series of "harmonics," which theory "requires a wrong application of the laws of acoustics and a complex multiplication of roots." There is also the Continental system of chromatic alteration built upon the convenient but misleading plan of giving the same alphabetical name to two entirely different musical sounds. There is also a system of chromatic harmony derived from the harmonic contents of a key and those of its tonic and relative minors, a plan I think equally misleading, since these "harmonic contents" are derived from the scales in question, and scales are but *secondary* products. In the present attempt to put the matter on a proper basis, it has been felt to be necessary to go to the fountain head and consider the subject *de novo*. To proceed then:

The word "chromatic" comes from a Greek word signifying colour, which, in connection with music, "could be used, and was used, to describe certain alterations in the tuning of the tetrachord, which was said to be *coloured* by these tunings."* It might be noted that with the alteration of one or two notes of the tetrachord by the third, half, or three eighths of a tone, the resultant did not, in any case, come out as a *semitonic* progression. Hence the word chromatic, which we see has no real connection with sound or music, has come by a side issue to be connected with a scale consisting of semitones only, and as contrasted with diatonic matter, to be applied to elements which are foreign to the prevailing key or tonality. In defence of what I half imagine is a new word coined to depict a new principle, I might also mention the allied words "chromatics," meaning the science of colours and "achromatism," meaning "devoid of a state of colouring."

* C. F. Abdy Williams.

CHROMATIC HARMONY, then, may be defined as that which is for the time being foreign to the prevailing tonality. Examples of chromatic harmony may consist of (1) COMPLETE PASSAGES or of (2) SINGLE CHORDS.

CHROMATIC TONALITY.—When a single chord, characteristic of some foreign key, is introduced in the middle of a composition, we agree to call this a *chromatic* chord; *but* we insist on its being immediately followed by the prevailing tonality. This being so, I contend that by substituting for this single chord a complete passage or progression in the same foreign key — followed, like it, by the previously prevailing tonality—the same principle of chromaticism is being duly carried out, the latter being only a magnified instance of the former.

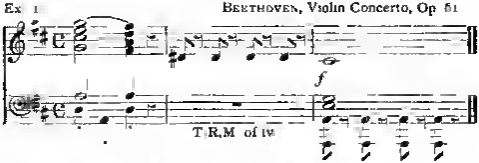
It is admitted that *progressions* and not chords define a key, therefore a chromatic progression may be said to define and substantiate the term CHROMATIC KEY, which term of course is only used in a subordinate sense

(The fact that the inclusion of a foreign progression, or passage from a foreign tonality or chromatic key, presents the phenomenon of a temporary transition or modulation, does not affect the case)

CHROMATICISM then may be said to define the temporary inclusion of a foreign element within the prevailing tonality; and this element, as previously mentioned, may consist of (1) COMPLETE PASSAGES or of (2) SINGLE CHORDS. In the former case a foreign or chromatic key or tonality is temporarily set up, and an analysis of instances of such reveals the fact that the keys of the flat sixth, flat third, flat second, major third, major sixth, and major second occur in this connection more frequently than any others

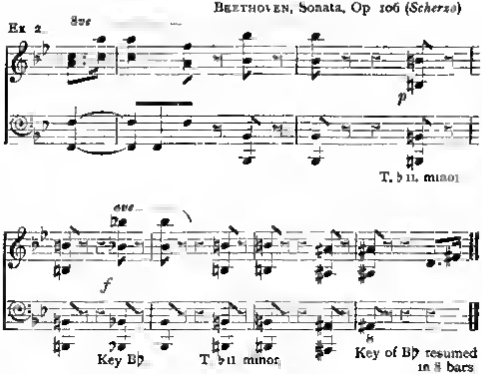
NOTE.—The chromatic element may also be melodic or even consist of single notes. *See* Exs. 1 and 2, from Beethoven's Violin Concerto and from his Pianoforte Sonata, Op. 106 (*Scherzo*).

Ex. 1. BEETHOVEN, Violin Concerto, Op. 61.



NOTE.—T.R.M. of IV. means that the *Tonality* represented is that of the relative minor of the sub-dominant.

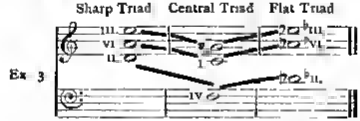
Ex 2.



NOTE.—B minor here represents C♭ minor. The key of the flat II. *minor* is rare, and in this case the minor mode does not develop till the second appearance of the key suggested

PRINCIPAL CHROMATIC KEYS.—The group of principal chromatic keys, as we may term it, may be sub divided into two other groups – one from the flat side of the key and the other from the sharp side—and these *triads*, as it were, of sharp and flat keys, suggest their counterpart in the central triad of diatonic keys—viz., those of the tonic and its fifths above and below :—

Ex 3.



The one group may be described as being built up on the flat sixth of the *respective* notes of the central triad, the other group on the major sixth. The key of the major supertonic, it might be noted, is comparatively rarely used. Examples of the above chromatic keys may be found in any standard work. For the present it may suffice to mention an odd example of each case.

Examples of Chromatic Keys:—

Flat sixth.—Beethoven. Andante in F, Op 35 (Students' Ed., bar 17).
Flat second.—Beethoven. Andante in F, Op. 35 (Students' Ed., bar 13 from end).
Flat third.—Schubert, Op 78 (Peter's Ed., *ff* on p 64).
Major sixth.—Gounod. "Faust." Introduction, bars 17-20 from end.
Major third.—Gounod. "Faust." Vocal Score, p. 53.
Major second.—Mozart. Quartet in G.

The three flat keys are not so remote as they appear, since they are related to a central key through its tonic minor, of which the flat third—its relative major—appears as the most nearly related key, with the flat sixth and flat second as the two flat keys next in order.

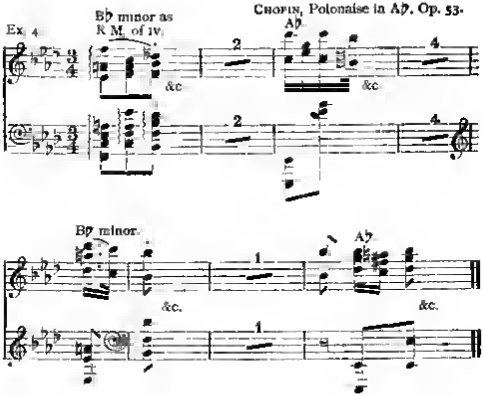
Secondary Chromatic Keys.—In addition to the above principal chromatic keys there remains to be considered the chromatic use of the more nearly related keys of the tonic, viz.:—

Examples.

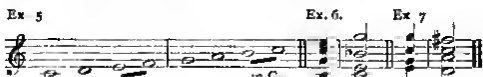
(1) Relative minor of tonic. Schubert, Op. 94, bars 9 and 10.
(2) Sub-dominant } frequent.
(3) Dominant }
(4) Relative minor of the sub-dominant. Mendelssohn's "Lobgesang," p. 43, Novello (bar after A), Vocal Score.
(5) Relative minor of the dominant. Mendelssohn's "Elijah" ("If with all your hearts"), bars 14 to 17.
(6) Dominant minor. Bach's "St. Matthew" Passion ("See the Saviour"), Novello's 8vo Ed., p. 158, bars 4 to 7.
(7) Sub-dominant minor. Beethoven's Sonata, Op 111 (*Allegro*), *see* Ex. on p. 212.

It will be seen that I have named the apparently most remote chromatic keys as the principal ones. Distance in this case lends enchantment, and no doubt accounts for their pre-eminence in the production of powerful effects. The value of secondary chromatic keys might also be said to vary *directly* as their remoteness of relationship. There is one point I might mention here, and that is, a chromatic key is not merely confined to the interpolation of a bar or so, but can consist of a complete motive, subsection, section, or even complete movement of a cyclical work, so long as the balance

of tonality, so to speak, is not overweighted. Where, however, there are several alternating sections in different keys as in the following, from Chopin's Polonaise in A flat, Op 53, in which the keys fall thus, A flat, B flat minor, A flat, B flat minor, &c., the prevailing key should be selected as the standpoint (A flat in this case):—

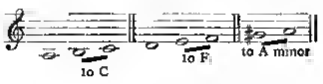


Relativity of Key.—It has been pointed out that the major scale includes *two* leading notes, one of which, as Sir John Stainer says, tends to preserve the existing key, and the other to lead out of it into the key of the sub-dominant (Ex. 5). Therefore the natural tendency of modulation from any major key is to its sub-dominant, an assumption fully borne out by the smoothness of the tonic discords (Ex 6) compared with the brilliance and more disturbing effect of those built on the supertonic (Ex. 7).



This modulatory tendency does not displace the relationship of the relative minor of the tonic, which may be considered as still more intimate through its *modal* connection. The harmonic minor scale of the tonic it may be observed possesses *three leading notes*, from which it will be seen

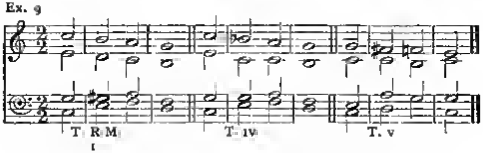
Ex. 8



that it contains close bonds of union with the aforesaid keys of the tonic and the sub-dominant, and so can be said to occupy an intimate position with regard to the same.

I think that to an unbiassed hearer, the comparative effects of key disturbance as given in Ex. 9 (where the conditions are as nearly as possible the same) is quite patent.

Ex. 9



It does not follow that because the dominant is a convenient medium for the enunciation of fugal answers and sonata secondary themes, that it is necessarily the most closely related to the tonic.

Indeed, the reason why the dominant is so acceptable a key for a second theme is (1) that the new idea is presented in a strikingly contrasted key, and (2) *the tonic (which is now in the relative position of sub-dominant) most naturally follows in the concluding section as the key most nearly related to the dominant.*

It is a remarkable fact that the greater part of the system of related keys leans to the flat side, and it is worthy of note, that a minor key modulates mostly (with the exception of its relative major) to the sub-dominant of its relative major, or to its own sub-dominant minor.

The conclusion come to, then, is based upon what I think is apparent from actual mental effect, viz., that the key of the relative minor of the tonic, and the key of the sub-dominant,

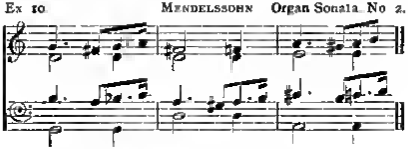
are more nearly related to the central key than is that of the dominant—the former from its close *modal* relationship to its relative major, and the latter from its lesser effect of key disturbance, as compared with the dominant.

It will therefore be seen that the relativity of key as set forth here, is not based upon the mathematical relationship of the respective tonics, as in the Day theory, but on their inherent relationship, in which *mode* plays an important part.

Duality of Mode.—Before considering the contents of the chromatic keys, it might be as well to dilate upon the influence of the tonic minor key.

Sir John Stainer has said in his "Treatise on Harmony" that in modern music "the connection between the major and its tonic minor is much closer than was formerly the case." He also speaks of those modern writers "in whose works this mixture of tonic major and tonic minor is becoming such an important element that chords are being formed of an *admixture* of both tonalities." It may not be too much to assume that this "elegant fluctuation between the major and minor modes, now so characteristic a feature of modern art," justifies the assertion that, for purposes of key relationship, these modes may be considered as being on an equal platform, and, in fact, as constituting a *dual key*. As an example of fluctuation between major and minor, *see* Ex. 10, from Mendelssohn's Organ Sonata, No. 2.

Ex 10 Mendelssohn Organ Sonata No 2.

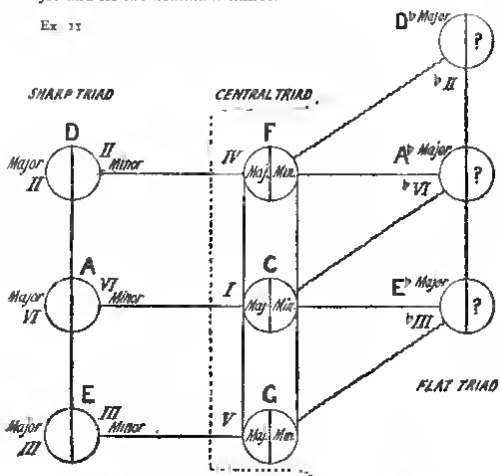


The *principle* of duality of key or mode was recognised in 1558 by Zarlino, who at that time emphasized the fact that the difference between the major and minor chords was not in the kind, but in the position of the third. It is upon this principle of duality of key, though differently applied to-day, that I beg to assert that the whole superstructure of modern chromatic harmony rests. Pursuing this principle, allow me to show you a diagram demonstrating duality of key or mode and its influence on the relativity of keys.

One should notice that the keys of the sharp triad are built up on the major sixth of the tonic, sub-dominant, and dominant, and can be directly derived through the relative minors of the same On the other hand, the keys of the flat triad are obtained from the relative majors of the *fourth above* (*i.e.*, reckoning from the minor standpoint), or through the sub dominant of the relative majors.

You will remember that the most closely related keys from the minor standpoint, as seen in Ex. rr, are the relative major and its *sub dominant* minor.

Ex 11



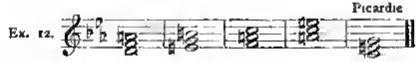
Note that each key is shown in its dual aspect The dotted line shows the sphere of relationship from the minor standpoint

The dual key of C major and minor, with its attendant relatives A minor and E flat major (from the minor side), might be described as a trinity of tonal relationship from which all the rest are derived. It is, perhaps, not inappropriate that the mysterious attraction of one key for another should be pourtrayed by a diagram, similar to that used to show the wonderful and unaccountable force of molecular attraction on the part of one chemical element for another.

Chromatic Chords.—We can now proceed to the consideration of chromatic chords. Since a *whole key*, or complete progression in that key, can be used chromatically, it stands to reason that any *single chord* characteristic of, and belonging to that key can be used in the same way, such a chord being called a *chromatic* chord.

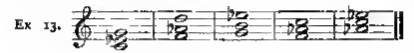
Relative Modal Chords.—In accordance with the views here assumed, I shall not consider the chords borrowed from the minor mode as chromatic, since they do not belong to a separate tonality, but are part and parcel of the dual key as above mentioned. Dr. Vincent, in his book on Harmony, does not consider that such chords can cause a modulation, but rather that they form a progression. Moreover, the term modulation, which was originally used to denote only a change of *mode*, is now used for a change of *key*. I would be inclined to favour the old meaning and use the term transition for a change of key. In Ex. 12 we have instances of chords available in the minor key and derivable from the tonic major :—

Ex. 12.



One would hardly consider the Tierce de Picardie (though it usually occupies such a commanding position) as a chromatic chord. Neither, on the other hand, can it be consistently argued that similar chords from the minor mode available for use in the *major*, and occupying comparatively subordinate positions, can be called chromatic. The true aspect of the question then is to consider them as relative *modal* chords. The following chords available in C major are borrowed from the minor mode :—

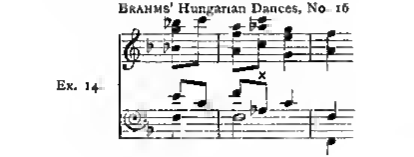
Ex 13.



In Ex. 14 we have an instance of the use of a minor common chord in a major key :—

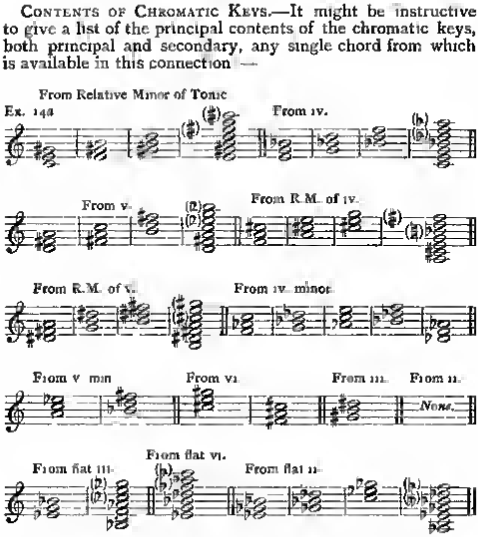
Brahms' Hungarian Dances, No. 16

Ex. 14



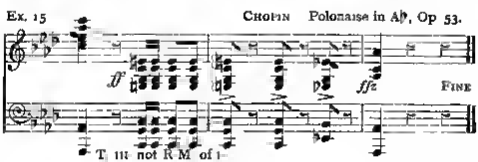
CONTENTS OF CHROMATIC KEYS.—It might be instructive to give a list of the principal contents of the chromatic keys, both principal and secondary, any single chord from which is available in this connection —

Ex. 148



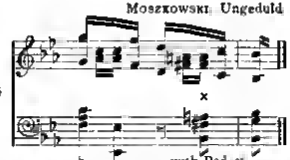
(It may be noted that those chords are omitted which can be derived from the more nearly related keys. This leaves the key of the major second without a representative, which fact probably accounts for its rare use as a chromatic key; while the key of the flat second has four chords for isolated use, and this probably accounts, from an historical point of view, for its frequent use as a key. An isolated chromatic chord *is considered to belong to the nearest related key*, except when, by repetition, it gives the impression of its own tonic, as in the following bars from Chopin's Polonaise in A flat. Op. 53.)

Ex. 15 CHOPIN Polonaise in A♭, Op 53.

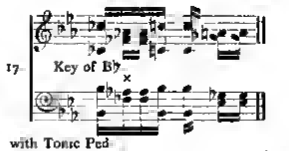


Here follow instances of some of the chromatic chords given in Ex. 14A :—

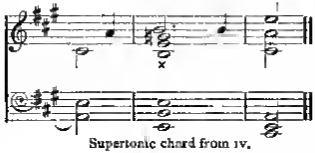
Ex. 16



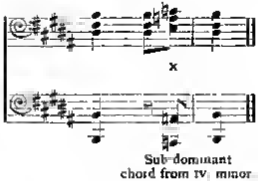
Ex. 17.



Ex. 18.

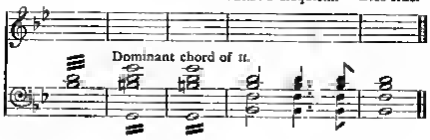


Ex. 19.



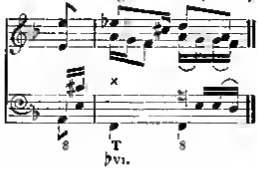
VERDI's Requiem. "Dies Irae."

Ex. 20.



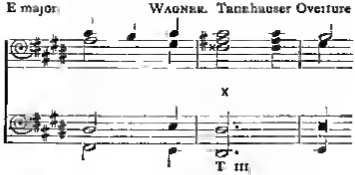
BRAHMS'
D minor. Hungarian Dance, No 14.

Ex. 21.



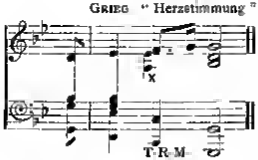
E major. WAGNER. Tannhauser Overture

Ex. 22



GRIEG "Herzstimmung"

Ex. 23.

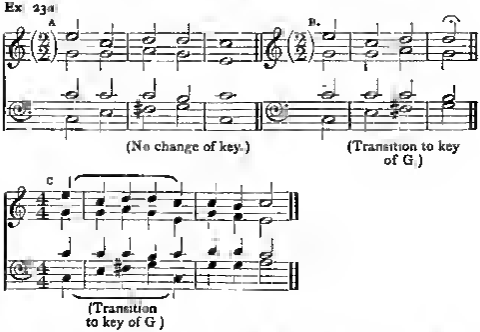


See also Ex 37 by Renaud, and Examples occurring in Sections on the augmented triad and the augmented sixth.

MODULATION.—With regard to modulation the question may arise, *at what point does a chromatic chord merge into*

a change of key, and as the chord of the seventh of a foreign *key* when used chromatically is often followed by the chord of its own tonic, it is necessary to state that some theorists claim that such a progression absolutely defines the key, and therefore causes a modulation; others, however, with Macfarren, hold that such progression if followed by some chord characteristic of the original key, is essentially chromatic. It appears to me, however, that a cadential movement of the bass from dominant to tonic, especially when the two chords occupy strong rhythmical positions, has a powerful influence in settling the new tonality, and it is perhaps as well to suggest that in order to avoid a change of key, the progression of the bass should proceed by step, and that any chord or chords tending to *confirm* the disturbance should occupy intermediate positions of weak rhythmical nature. From a previous discussion which took place on this point in March, 1894, I gather that Professor Prout is of opinion that a dominant seventh succeeded by a tonic chord, makes a complete modulation in all cases. On the other hand, Professor Niecks gives me this quotation :—

Ex 234

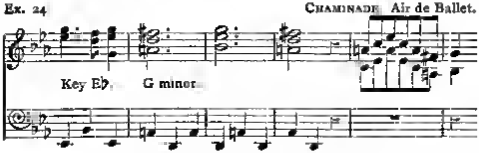


in which he says that tonal satisfaction is not found until the final chord of C is reached. In fact, this only bears out my own views, as the tonic chord of G here is on a *weak* beat, and taken by step. Reverse the accent, however, as in Ex. a, and a modulation is set up at once; even when the confirmation chord is placed only on a medium accent as in Ex. c, a change of key is experienced. Dr. Riemann, in that curiously abstruse book "Harmony simplified,"

on p. 177 makes the observation that "accented beats are really the bearers of the harmony"—and so they are. One can easily see that it is purely a question of accent simply, or the same combined with cadential movement of the bass. Before leaving the subject of chromatic chords there are a few points which I would like to mention:—

1. When the introductory chords of a chromatic passage are ambiguous, as in—

Ex. 24 CHAMINADE. Air de Ballet.



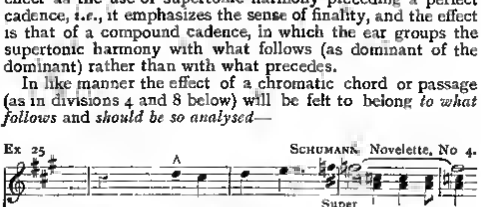
The key is not decided till the quaver passage is reached

it is necessary to analyse from the standpoint of the context.

2. The return to the tonic may be made by the means of a chord or passage in the key of the dominant without impairing the general impression, and, as already stated, the tonic, which is now in the relative position of sub-dominant, naturally follows as the most nearly related key for the concluding section. The return through the dominant key has the same effect as the use of supertonic harmony preceding a perfect cadence, i.e., it emphasizes the sense of finality, and the effect is that of a compound cadence, in which the ear groups the supertonic harmony with what follows (as dominant of the dominant) rather than with what precedes.

In like manner the effect of a chromatic chord or passage (as in divisions 4 and 8 below) will be felt to belong *to what follows* and *should be so analysed*—

Ex 25 SCHUMANN. Novelette, No 4.

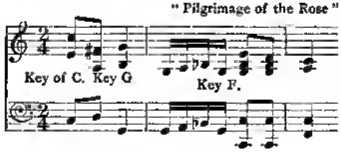


NOTE—The augmented sixth passage is felt to belong to the following key of F, and is so analysed. The supertonic discord emphasizes this feeling

But, on the other hand, a *departure* from the tonic major through the dominant major will generally be felt to come from the dominant itself.

3. If the chromatic key be a flat one, then the return through the dominant has the effect of what I would call *oscillation*, which is really only a magnified instance of the use of a tonic discord followed by one on the supertonic. In the following example the "oscillation" is from dominant to sub-dominant:—

Ex. 26.



4. A chromatic key may begin with a chord from another foreign key, and on rejoining the original key may do so through the means of another chromatic chord or subordinate chromatic progression.

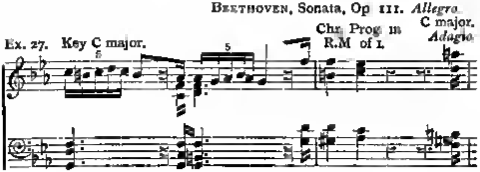
5. A return from a chromatic key may be made to, or by means of, the tonic minor mode.

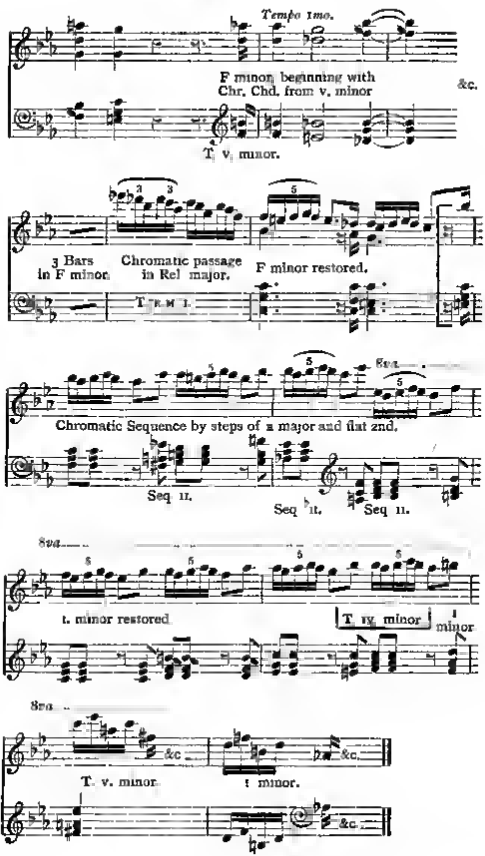
6. Examples of chromatic tonality may contain within them other subordinate chromatic passages.

7. Closely woven sequential passages, the tonality of which progresses entirely or mostly by semitones, frequently nullify the temporary tonality.

Instances of Nos. 4, 5, 6 and 7 as above may be found in the following extract from Beethoven's Sonata, Op. 111, *Allegro*:—

Ex. 27.

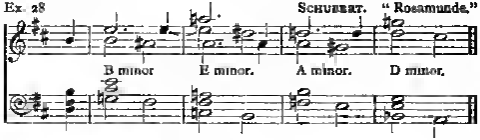



Tempo 1mo.
F minor, beginning with
Chr. Chd. from v. minor
&c.
T. v. minor.
3 Bars
in F minor.
Chromatic passage
in Rel. major.
F minor restored.
T. R. M. I.
8va.
Chromatic Sequence by steps of a major and flat 2nd.
Seq. II.
Seq. II.
Seq. II.
8va.
I. minor restored.
T. IV. minor
I minor
8va.
&c.
&c.
T. v. minor.
I minor.
&c.

8. A theme may *begin* with a chromatic chord or passage from a chromatic key, as, for instance, in the familiar Wedding March of Mendelssohn, which nominally in the key of C begins with a chromatic passage from E minor.

Before leaving the question of modulation it might be as well to say that modulatory analysis can be conveniently made on the system of considering the tonality *in relation to each* successive step in the process. For instance, a modulation may proceed by steps of a flat or major second, as in Ex. 27, or a flat sixth, or by the frequant plan of sub-dominant minors, as in Ex. 28.

Ex. 28



To resume, it will be seen then that the above scheme provides a major and minor common chord on every note of the chromatic scale, not one of which but can be linked by some note common to a chord belonging to the tonic major or minor mode. Hence every chromatic chord can be said to possess a *dual* relationship. Some of the rarer forms no doubt seem a little remote, but the very remoteness indeed constitutes the charm when used artistically. It has been remarked that any two chords in the hands of a genius could be put together and would come out all right. Fortunately, or unfortunately, as it may be, we are not all geniuses, and some system of routine study is necessary for ordinary mortals. The value of the above classification therefore lies in the fact that, to the mature student and artist, it lays open at a glance the chromatic chords (omitting the augmented sixths) available and in use at the present day. Modern art, however, is not stationary, and the list, therefore, is not a conclusive one.

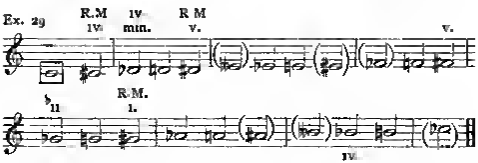
Chromatic Alteration.—It is worthy of note that the chromatic concords on the flat second and major second are represented in Ex. 14*a*; also the augmented triads on the tonic, sub-dominant, dominant, and flat sixth, which Continental theorists account for by chromatic alteration of common chords belonging to the tonic. This, by-the-bye, is a convenient enough theory, but not one, I think, which gives any conception of their true relationship to the tonic. Indeed, one is driven to the conclusion that Continental schools of

thought take up a very conservative standpoint as regards the higher discords, and a very utilitarian one as regards chromatic chords. Before proceeding, it seems opportune to emphasize the assertion that there cannot be any real alteration of any individual sound; there is no possible connection between B and B sharp, neither as separate entities nor as constituents of a tonality in which one of the notes is temporarily modified. B sharp cannot become B, nor can B become B sharp. Neither, to be consistent, can there be any connection between C and C sharp or C flat as separate tonalities; C flat and C sharp serve merely as convenient links in modulating between the extreme sharp and flat keys. This brings me to the question of the chromatic scale.

THEORETIC CHROMATIC SCALE.—Suppose we consider the question of the selection of a melodic formula to consist of minuter divisions than those of the diatonic forms. Let us look at the question from the beginning, and we should be met by the query, of what number of steps shall this formula consist? Let us bear in mind that the word "Chromatic," as in chromatic scale, has etymologically really nothing to do with semitones. The question then will be entirely solved in an arbitrary manner according to taste or convenience. In European countries, owing to the predominating and *arbitrary* influence of keyboard instruments tuned on the equal temperament system, that number consists of twelve intervals. In Eastern countries, where they are *not* under this influence, the number is variable. It follows then that any system of chromatic HARMONY, which is founded on a chromatic scale of *twelve* notes, is likewise an *arbitrary* one. This, then, is the position. We are confronted by theorists who say that A flat and G sharp cannot both exist in the key of C, and who insist that the so-called chromatic scale must consist of only twelve or, at most, of seventeen intervals. My view is, that for *harmonic* purposes a modern chromatic scale must perforce consist of the whole number of *harmonic* intervals which are available from any one particular standpoint. On the other hand, for melodic purposes, it may consist of any number that is agreeable. Personally, as yet, I see no reason for altering the ordinary form of the chromatic scale as regards purely *melodic* passages. It is merely a matter of convenience. Perhaps I should say that modern composers do not as a rule make use of the whole of this series. In fact, it is possible to build up a sufficient series of major and minor triads without going beyond the bounds of the chromatic keys which I have pointed out are in general use; still they are there to draw upon. For instance, speaking of the key of C, the notes C flat, E double flat, and B double

flat are not found in the chromatic keys in general use, but there is no doubt they are possible, and occasionally used, and, moreover, it is quite feasible that at some future time they may be even in general use. Why not, then, "face the music," so to speak, and instead of making tentative selections, give the whole scale as it is? This is not a matter for ordinary students, but for mature and practised thinkers. Remember that as long as we agree that twenty-one harmonic intervals are possible in any key, so long must we make our theoretic or harmonic chromatic scale to consist of that number. Observe the following scale. Each note of this scale (omitting the diatonic basis) represents some key with which harmonic relation is possible—that is to say, it represents all tonalities which have any note in common with the central scale. Notes within brackets represent chromatic keys not in general use:—

Ex. 29

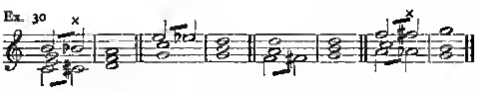


(In this example E sharp is inserted as characteristic of the key of F sharp, while A double flat and B sharp, as deduced from the keys of C flat (minor) and C sharp, are omitted, because these keys have no *harmonic* connection with C. The octave is omitted as being a harmonic duplicate.)

If we could agree to restrict the actual number of keys to those *individually* represented on an equal temperament keyboard, then the matter would be simplified, but otherwise we must take it as it is. At present, in the twelve-note form, the chromatic scale as little satisfies modern requirements as does the old minor *mode*, with regard to the modern minor *harmonic* key structure. Scales are artificial products, and it cannot be said that the evolutionary development, at least as regards the chromatic scale, has reached a final stage. The twelve-note chromatic scale might consistently be called melodic, since it satisfies the need for a chromatic melodic formula for instrumental and vocal work, and the extended chromatic scale might then be fitly designated the theoretic or harmonic. I may mention a notable paragraph from Helmholtz, as quoted by Dr. Pole in his "Philosophy of Music," in which he says: "Hence it follows (and the

proposition cannot be too vividly present to the minds of our musical theoreticians and historians) that the system of scales and modes, and all the network of harmony founded thereon, do not seem to rest on *any* immutable *laws of nature*. They are due to æsthetical principles which are constantly subject to change according to the progressive development of knowledge and taste." (The italics are mine.) Harmony, as we understand it, arose "from a combination of melodies sounded simultaneously,"* and it is averred by Helmholtz that the coincidence of the acoustical series of harmonies with the ordinary superimposed system of thirds does not go further than the major common chord. Professor Prout, I may say, is of opinion that if we let into the key of C the whole series of chromatic chords proposed, "the whole theory of a key as containing twelve notes goes to the wall at once." Well, then, gentlemen, in that case I am afraid that the twelve-note chromatic scale, for theoretic purposes, will ultimately have to give way. It might be interesting to represent the views of Professor Niecks on these questions as coinciding to some extent with those held by Continental theorists. Professor Niecks is of opinion that "*a borrowed chord* is an absurdity. The so-called borrowed chord is only in appearance the same chord in both keys, its tendencies being different on each. The combination of notes which form the dominant triad in G major bears on the tonic triad of that key; the supertonic chromatic major chord in C major bears on the dominant triad, which, tonally, is a chord with two elements of unrest, whilst the tonic chord contains only elements of rest. Compare also the same combination of notes and its different character as tonic and sub-dominant in major, and as sub-mediant in minor," &c. Of *chromatic notes*, he says they are "subservient and subordinate to the diatonic contents of a tonality. They ought not to be regarded as something foreign to the tonality or the key. They may be regarded as artificial leading notes, as modifications of the diatonic notes, by which the natural *tonal* or harmonic *tendencies* or the intended melodic drift are emphasised or momentarily altered." (*See* examples given.)

Ex. 30

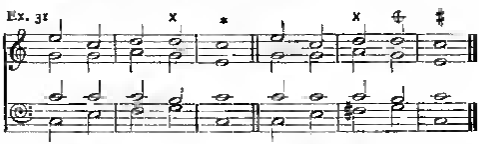


Professor Niecks also says, "the keys to the mysteries of

* Hauptmann.

harmony are (1) the law of dissonance, (2) the law of tonality, which is the higher law.

Ex. 31



The law of dissonance is satisfied (in Ex. 31) by x, but the law of tonality is not satisfied until * is reached. If x, in the second example, were the dominant of G, ⊕ would satisfy the law of tonality as well as the law of dissonance; but as it is the supertonic chromatic chord with raised third, tonal satisfaction is not found until ♯, the tonic chord, is reached. I believe it is the tonal tendencies — the bearing of the elements of unrest, of movement, on the elements of rest (the tonic mediant and dominant) which alone can furnish the means for the solution of the difficulty." Precisely so. It is purely a question of surroundings. We quite agree that the F sharp, C, A, D, has quite a different effect in the key of G to that experienced in the key of C; the tonal tendencies vary in each case. It is the same chord in each case, but the circumstances are different. In the first case the effect is merely to confirm the existing tonality; in the second, it suggests a new key. If the suggestion is confirmed a new tonality is set up; if, on the other hand, the "tonal tendencies" are *thwarted*, then we have a sensation of a chromatic chord. In the second example the F sharp cannot be considered as a modification of the diatonic note F. Let me refer you again to Ex. 23*a*, A and B. The chord F sharp, A, C, D, is the same in *both* cases, it is simply a question of *accent*, or prominence, either with the chord itself or the chord that follows. If the confirming chord is made sufficiently prominent a new tonality is set up; if not, the disturbance passes away, the tonality is not changed, and the chord is reckoned as *chromatic*. There is absolutely no connection between F and F sharp (two entirely separate sounds), and, as far as notation goes, they might easily be described by different alphabetical names; neither can there be any connection between F, A, C, D, and F sharp A, C, D. Any "momentary alteration" of the "melodic drift" then is not due to the *alteration* of a note, but to the introduction of a new note or chord from a neighbouring key, and it is on this principle alone that any consistent system of chromatic harmony can be built.

CHROMATIC DISCORDS.—We will now touch on the most important constituents of the previously mentioned chromatic keys, viz., the discords built up on the dominant of each. Those belonging to the dominant and sub dominant keys are known as discords on the supertonic and tonic respectively. There is no reason, however, why *any* constituent chord of *any* chromatic key should not be available theoretically, as it is in actual composition. We are thus able to enlarge the bounds of modern tonality by the inclusion of the *discords* built on the dominant of all the chromatically related keys. It is understood, of course, that the dominant discords appertaining to these keys may resolve on their own tonics, and still be accounted chromatic in the prevailing key, if such chord of resolution does not by rhythmical position, repetition, or by the aid of succeeding chords confirm the key which it temporarily suggests It is from these chromatic discords that we can provide an explanation of the so called augmented sixths. Sir Hubert Parry says in his article on Harmony in *Grove*, "that the augmented sixth is probably nothing more than the modification of a melodic progression of one of two parts." Exactly so; all harmonic combinations may be said to have originated in like manner. It is the theorist's part, as soon as these fortuitous combinations lose to some extent the association with their polyphonic combination, to consider the same to all intents and purposes as essential or constituent chords, when they thus *become liable to resolutions and combinations which would not have been possible in their original condition*. Let me refer you to Ex. 30. We have here, in the first and last instances (marked ×), definite chords, not mere melodic progression in *one* of the parts; it is surely then more to the point, instead of considering them from an exclusively contrapuntal point of view, to allow of an explanation which would correctly interpret the *harmonic* tendencies of these chords as represented in the mass Before going further it might be necessary to say a word on the chord of the *thirteenth*.

CHORD OF THE THIRTEENTH.—I am aware that the Continental school, in common with some of our older theorists, deny the existence of chords of the thirteenth. In such a case it seems only necessary to state that to select a *portion* only of the limited series of thirds, built up on the dominant of any key and to reject the rest, appears to me a somewhat arbitrary proceeding.

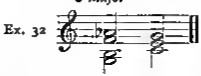
It is necessary to remember that Harmony, as we understand it, arose "from a combination of melodies sounded simultaneously." The accompaniment of a melody, first by octaves, fifths, fourths, and thirds, provides successive links in the evolution of the harmonic structure, and the gradual

superimposition of thirds, as far as was musically possible, was only a consistent though unconscious carrying out of the same principle. As previously pointed out, the attempted identification of such a series with the acoustical phenomenon of harmonics is unnecessary, since the former is of æsthetic origin and unsuggested by the latter. In any case, it is held by Helmholtz, upon whose discoveries the principal theories of modern acoustics rest, that *the coincidence cannot go further than the major common chord.* (Pole, "Philosophy of Music," pp. 245 and 296.) (*See* again paragraph as quoted by Dr. Pole from Helmholtz on p. 216.)

Dual Thirteenths.—It is possible that some prejudice may exist against the idea of dual tonality, or *modality*, as shown in what I would call the *dual thirteenth.*

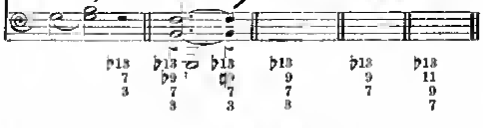
It is, however, at least as consistent to borrow a minor thirteenth to use in a *major* chord over the same root, as it is to borrow what by courtesy might be called *minor* discords for chromatic use in the *major* mode (*See* Ex. 32.)

Ex. 32 C major



It is really only another example of duality of key or mode. In modern music a key must now be considered to consist equally of major and minor elements, and it will be found that it is this "mixture of tonalities," in the form of the dual minor thirteenth and major ninth, that supplies a simple explanation of the construction of the so-called augmented sixths. Thus it is a question, not of a dual *root*, but of a dual tonality.

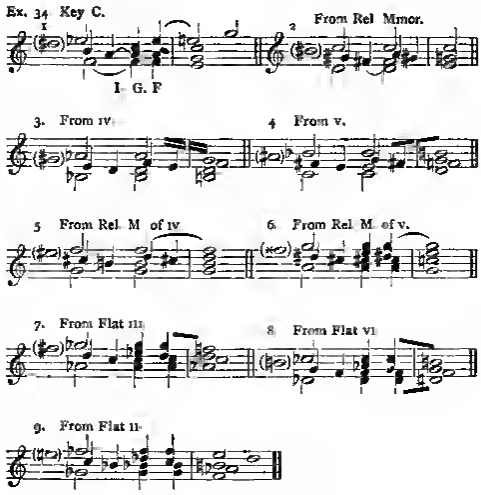
Ex 33 Key C



Augmented Sixth.—You will notice that the first chord given in Ex. 33 is a form of the minor thirteenth with a

dominant seventh. Omit the root, and you get a kind of augmented sixth similar to the French form, but without the ninth. This is important, as showing the connection between the chord of the thirteenth and the augmented sixth. For the sake of comparison I give, in Ex. 33, the ordinary minor ninth and thirteenth, first without the root, then with the root on the second and third beats, then with the ninth made major, but with root omitted, showing an inversion of the French form.

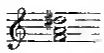
Below are examples of the augmented sixths belonging to the key of C, as derived from the central key and its dependencies (*see* Ex. 34). The initials I. G. F. denote the Italian, German, and French forms of the chord, and in each case the chord is resolved into a chord derived from the central scale. The false notation of the sixth is given in brackets



MNEMONIC.—Aug sixths appear on C, D, F, G, A (all Diatonic notes except the third and seventh), and on D♭, G♭, A♭, B♭, (all chromatic notes except the flat third).

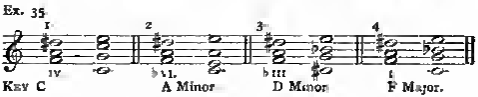
It will be noted that the first chord of each example is the quasi-augmented sixth form of the minor thirteenth, seventh, and third, forming a kind of link between the chord of the thirteenth and the characteristic French sixth. It will be also seen that the above chords appear *not* on the flat sixth of the tonic, but on the sub-dominant. Objection has been taken to this chord as being borrowed from the relative minor, where it occurs on the flat or minor sixth of that key. It is quite possible that the use of this *originated* in this way, but as I have pointed out in connection with harmonic combinations in general, when new associations are introduced they are followed by new conditions of resolution, and consequently by new derivations. The chord, however, as constituted from a dual mode, is undoubtedly fundamental, thus coinciding with the form used by Jadassohn on the sub-dominant major.

Jadassohn gives this chord—



the augmented sixth on the sub-dominant as resolving into the keys of C, A minor, D minor, and F major, as in Ex. 35.

Ex. 35.

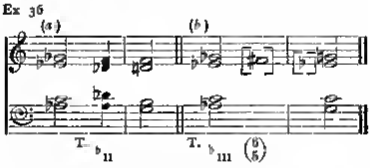


The one in C coincides with No. 1 of Ex. 34, No. 2 turns out to be the usual one in use on the flat sixth, No. 4 coincides with the one from the dominant in Ex. 34, while No. 3 turns out to belong to the key of the flat seventh, and is quoted by Jadassohn as being rarely used. I have not included it in the list, owing to the comparatively rare use of the flat seventh as a chromatic key. It is a curious fact that though the key of B flat (as connected with C) does not seem to have any general existence, it is quite a prominent *harmonic* feature of Scotch national music (for violin and pipes), as in "Ghillie Callum" and "Tullochgorum," no doubt owing to the mode in which much of it is written.

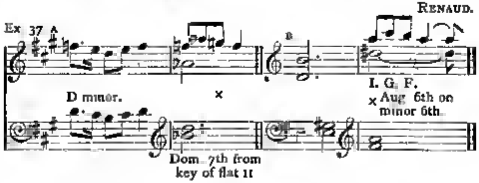
It is necessary to point out that as the form of the German sixth might be considered as synonymous with that of the dominant seventh, it is sometimes necessary to hint incidentally at the real chromatic tonality in passing, as in Ex. 36 (*a*). *Where no such hint is given, the most closely*

related tonality is attributed as Ex. 36 (*b*), the key of the flat third being nearer than that of the flat second.

Ex 36



It is interesting to note also that we have available, as in Exs. 14*a* and 34, a dominant seventh or its synonym (the German sixth), as well as a major and minor common chord, on every note of the tempered chromatic scale. Objection is sometimes raised that the effect of a German or Italian sixth is not like that of a dominant seventh. This, of course, is owing to surroundings (*see* paragraph 2, p. 218). The French sixth is the only really characteristic form, indeed, *owing to the indefinite dominant aspect of the Italian and German forms*, those instances occurring on I., II., V., VI., and flat VII. (in major), *should rather be reckoned as dominant sevenths*, unless the real tonality is otherwise incidentally hinted at. *See* Ex. 37, from Renaud:—

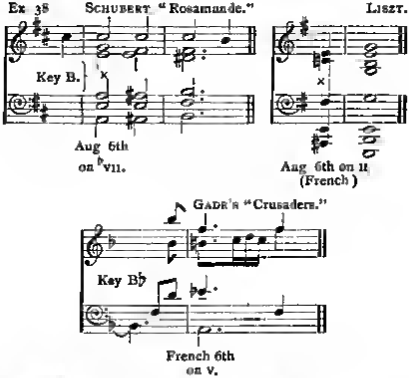


The passing note G in Ex. 37 (A) suggests that the chord is a dominant seventh from the key of the flat second rather than a German sixth (from the flat third), though the key thus represented is not so nearly related. In Ex. 37 (B), however, the chord would be classified as a varied form of the augmented sixth on account of the B natural which is a constituent of the French form, and this form, it will be noted, cannot appear in enharmonic guise.

Before concluding this section, one might point out an interesting resolution of the augmented sixth in Ex. 50, in

which the major ninth becomes minor, and also direct attention to remarkable instances of the augmented sixth by Schubert, Liszt, and Gade, in Ex. 38.

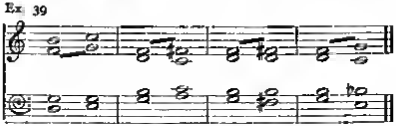
Ex. 38



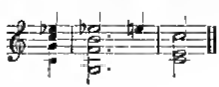
It is the habit of some theorists to ascribe such chords as the augmented sixth in the last example to appoggiatura movement in one or more of the parts. It is, however, more consistent that preference should be given to a *harmonic* explanation when the chord, with exception of intruding pedal notes, can be definitely ascribed a dominant origin.

Chromatic Resolutions.—Some objection might be made to the upward resolution of the minor thirteenth, as shown in the chords of the so-called augmented sixth, but if the following resolutions of the seventh (*see* Ex. 39) marked "Good" and authorised by Jadassohn, be allowed (and there

Ex. 39



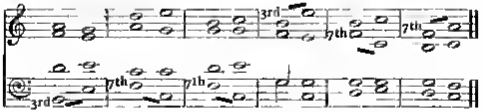
Ex. 40.



seems to be no doubt of their good effect), possibly there may be no objection to similar resolutions of the minor thirteenth, in which the dominant influence may be said to be less strong, especially when a mere change of mode, as in Ex. 40, necessitates the rising of the thirteenth.

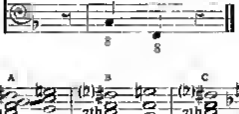
Modern practice indeed seems to be somewhat indifferent to the *direction* of the resolution of the seventh and higher discords, as long as it is by step. This, however, applies to non-cadential positions. Where a cadence occurs, or the effect of one can be simulated, as in Ex. 41, one of the notes appears to be bound by the ordinary rule, and the other seems to be free to leap.

Ex. 41.

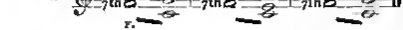


In every case when the third leaps, the seventh resolves downwards by step, when the seventh leaps, the third resolves upwards by step (*see* also Exs. 54, E and F, and 43, A). I might also remind you of the familiar resolution of the thirteenth by leap, as in Ex. 42, from Grieg ("Ein Schwann"), and of the possible leap of a seventh to leading note in the part resolving a minor ninth. The new law thus evolved accounts also for the irregular resolution of the so-called secondary chords of the seventh, the added sixth, augmented sixths, and other discords. (*See* Exs. 41, 54, D, E, and also Ex. 43 from Jadassohn.)

Ex. 42. GRIEG. "Ein Schwann."



Ex. 43.

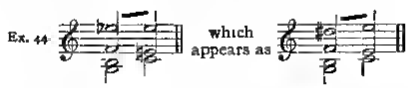


In the latter example the minor thirteenth in the guise of the augmented sixth resolves by step, and the seventh in each

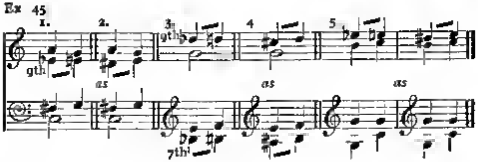
case resolves by leap; in each example there is a cadential effect.

No doubt the glamour of the false notation used in the past has much to do with any objection to these apparently contrariwise resolutions, which contrapuntal exigencies and new chromatic relations have brought about.

FALSE NOTATION.—In Drs. Bridge and Sawyer's excellent book on Harmony the following words appear: "the addition of an accidental to a note of a chord frequently appears like a casual chromatic alteration of that note. . . . Theoretically, the chords that are thus created have received a derivation which makes their *usual* notation, as here given, wrong," in the chords mentioned a flat is generally represented as a sharp, as in the following example—



in order that the upward resolution may coincide with the usual preconceived idea. We are familiar with examples of what is called expedient false notation, in which the so-called supertonic and tonic minor ninth "is often written as though it were the chromatically-altered root itself,"* as in Ex. 45

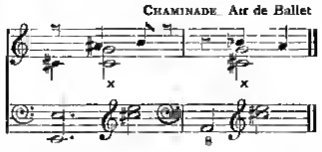


In No. 4, the minor seventh also is altered, and the rising minor thirteenth appears also in the guise of an augmented fifth, as in Exs. 45 (5) and 44. "This expedient notation saves an accidental, but disguises the true origin and radical derivation of the chord."* One can hardly grudge the executant the slight expediency which these examples of false notation

* Trinity College Text-Book.

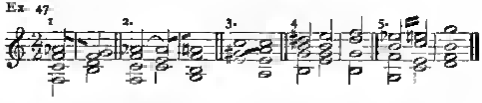
incur, but unfortunately the matter does not rest there. The habit of confusing the real notation is a growing one, and the question of expediency is apt to be lost sight of—so much so, that there are not wanting theorists of the older school who would come to the conclusion on this account alone that minor discords *cannot* rise in resolution, and that such instances require altered notation. Indeed, what has been described as the happy go-lucky method of all composers, from Beethoven downwards, of indicating chromatic accidentals, has so confused the real notation of the higher discords and all chromatic chords, that in analysing each case must be taken on its merits. *See* the following example from Chaminade :—

Ex 46.



in which the rising ninth is marked by a sharp, the falling ninth by a flat. Therefore, in the interests of correct notation, it is greatly to be desired that, in the upward resolution of a minor discord, a chromatic and not a diatonic semitone should be used. Indeed, there seems to be some rooted aversion to the upward resolution of any minor discord, for instance :—

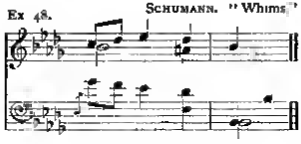
Ex 47.



While no objections would be raised to Ex 47, No 1, on account of the downward resolution of the minor ninth A flat, as soon as the A flat rises, as in No. 2, demands would probably be made that the A flat should be transformed into G sharp, though it is difficult to see how the enharmonic change could be upheld; once, however, allow that it is possible to borrow for chromatic use the characteristic augmented triad belonging to the sub-dominant minor, and all objection

vanishes; this of course does not shut out the use of its prototype from the relative minor, when its origin in cadential and other positions is clearly defined, as in No. 3. The same reasoning applies to the augmented triad borrowed from the relative minor of the dominant, as in No 4, where the first chord by its attempted cadential movement towards a close in E minor may be classed as an augmented fifth, and likewise in No. 5, where the *strong cadential movement* in C marks it as a constituent of its own dominant. It seems, however, somewhat inappropriate to ascribe dominant origin to indefinite chords, such as the augmented and diminished triads formed of superimposed thirds on various degrees of the minor and major scale, unless *they assume* the tonal functions of a dominant discord, as in the following example from Schumann:—

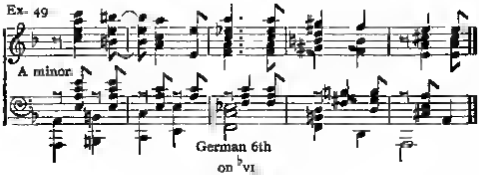
Ex 48. SCHUMANN. "Whims"

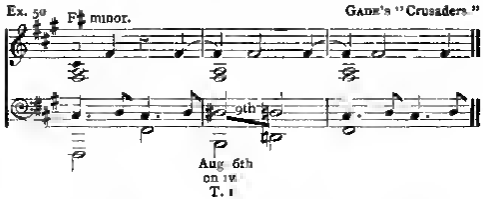


I need hardly touch on the question of the *false notation* of the so-called augmented sixth, since it is due to the misunderstanding of the tonal relationship, and in the rare cases where it is right—as in the following examples from Brahms' Hungarian Dances (Ex. 49) and Gade's "Crusaders" vocal score (Novello's Octavo Edition, p. 2) (Ex. 50) and in Ex. 38—it is probably a question of convenience or expediency of notation.

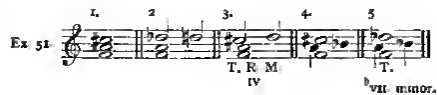
BRAHMS' Hungarian Dances for Duet, Book 1 (2)

Ex. 49

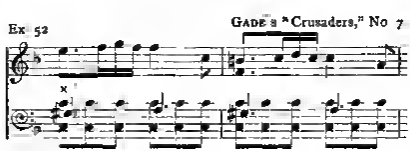




Augmented Triads.—In the foregoing section it is pointed out how the tonality of "synonymous" augmented triads can be shown by the aid of cadential movement, when in thus assuming dominant functions they become chords of the thirteenth. Under other circumstances these "synonyms" can be distinguished in other ways:—(1) by the æsthetic effect of the context, or (2) the upward progression of the leading note; for instance, No. 1 would not appear as 2, but as 3, while 4 is wrong and 5 would be right, simply because the leading note in each case determines the *tonality*, and when that is fixed the notation in Nos. 2 and 4 is, of course, out of bounds.

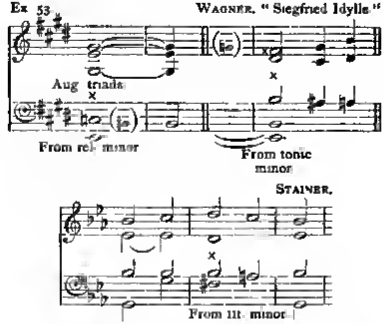


Again, in the following extract, in Ex. 52, from No. 7 in Gade's "Crusaders," the G sharp, if written as A flat, would come from a somewhat nearer key (viz., F minor), but the æsthetic effect of the context is that of A minor, therefore the notation as given is correct.



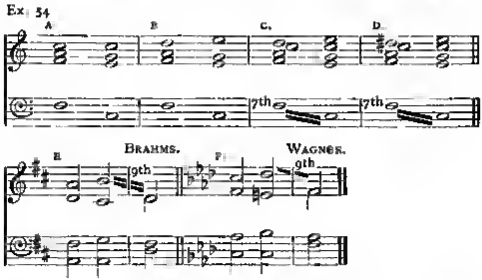
Two other instances of augmented triads by Wagner, and one by Steiner are given below.

Ex. 53



Cadential Effect.—In the section on "Chromatic Resolutions" and in that on "False Notations" I have treated of the effect of the cadence in defining the *tonality* of doubtful discords, and likewise of the effect of cadential movement on the *resolution* of some of the higher discords. Suppose we investigate for a moment the principle of this "cadential effect." In Ex. 54, A, we have the plain plagal cadence; in B

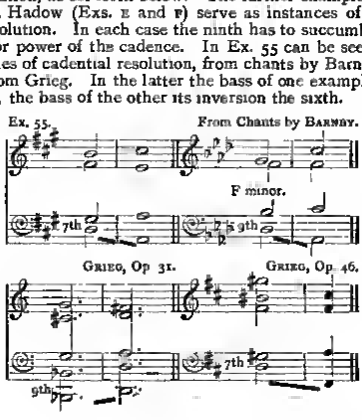
Ex. 54



the effect of the cadence is still strong enough to make one overlook the altered upper part; in C the chord assumes what I would call an indefinite dominant aspect—that is to

say, a dominant structure, the tonality of which is only determined by the context. In this case, the very definite strong cadential effect in the bass fixes it at once as being in the key of C, though the leap in the bass induces the violation of the usual resolution of the seventh. This and the others are good examples of the superior power of the cadence, so that the ear perforce has to be satisfied with only a partial resolution by step of the discordant elements, the only difference being that in Ex. 54, D, we have a chord of much more definite dominant aspect, brought about by the introduction of an E flat (represented as D sharp), that is to say, the minor thirteenth.

MELODIC SUBSTITUTION.—An effort has been made lately by Mr. Hadow—from whose paper, with the exception of Ex. D, these examples are quoted—to treat the D, in Exs. B and C, as a harmonic equivalent for C. I am, however, inclined to regard these as instances of the assumption of the power of the cadence over the *melodic* upper part. As long as the effect of the cadence is maintained, substitutions of one note for another may take place in the melodic or upper part. The principle underlying the above cadential effect, therefore, I would prefer to call melodic substitution, one that necessarily is only available where there is a *fixed harmonic intent*, and akin to what I would call the principle of harmonic substitution, as set forth below. The further examples given by Mr. Hadow (Exs. E and F) serve as instances of cadential resolution. In each case the ninth has to succumb to the superior power of the cadence. In Ex. 55 can be seen three examples of cadential resolution, from chants by Barnby, and two from Grieg. In the latter the bass of one example leaps a third, the bass of the other its inversion the sixth.



HARMONIC SUBSTITUTION.—The principle of harmonic substitution can be said to operate in various ways:—

1. In the transference of a discord, such as a seventh or ninth, to another part of an adjacent chord derived from the same root.

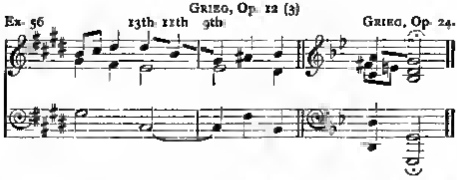
2. The substitution of one discord for another in adjacent chords derived from the same root.

(*a*) Without alteration of the position of the chord.

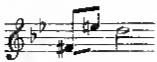
(*b*) In another position of the same.

For example of (*a*) *see* the following, in Ex. 56, from Grieg's "Watchman's Song," and his "Ballade":—

Ex. 56

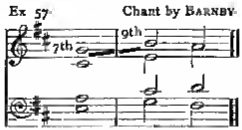


In the latter example the substitution of the major ninth for the third by step might be taken as an inverse presentation of—



For example of (*b*) *see* extract from Chant by Barnby, Ex. 57:—

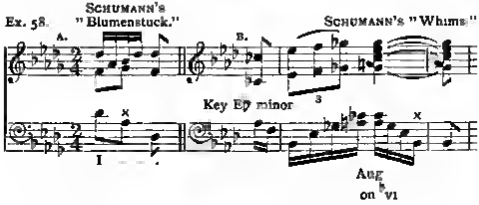
Ex. 57



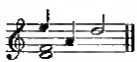
3. Harmonic substitution in the bass of tonic or dominant (*a*) for each other, or (*b*) for a note of a chord derived from a *different* root.

For an instance of this see Ex. 58, A, quoted by Mr. Hadow, in which a dominant is substituted where tonic might continue, and the extract from Schumann, in Ex. 58, B, where the dominant B flat is substituted for C flat.

Ex. 58.



4. Temporary substitution of a concord for a discord, as in an ornamental resolution.

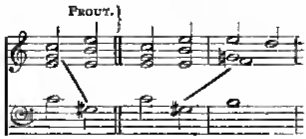


False Relation.—It is admitted that false relation arising from "confusion of tonality" is not caused by accidentals taken from relative keys, that is to say, the effect is not caused by any recognised chromatic chord. The *cause* of false relation occurring, as it generally does, between major and minor chords derived from the same root may be, as Riemann puts it, that we are "deceived into the belief that the same harmony is being sustained, and so the chromatic note only appears *out of tune*." What concerns us, however, is that, *modal variation apart*, this "chromatic note" referred to really represents a chromatic chord, consequently, when this chord sets up a modulation, I hold that there cannot be any effect of false relation, because there is no confusion of key. "Confusion of tonality" can only arise when there is the sense of *hovering* between two keys. There may be *abruptness* of transition owing to the prominence given to the chromatic note, but no "confusion" if a definite modulation is set up.

Jadassohn only allows a "cross-relation" in pure four-part writing where there *is* a modulation, simply because in that case there is no *effect* of false relation. It is admitted that the usually recognised chromatic chords do not set up the effect of false relation. One might, conversely, deduce from this that *any* foreign chord which can be introduced

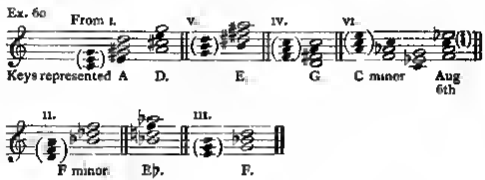
without that effect might he duly classified as *chromatic*, and that not for that reason only, hut because it is as easily followed by a diatonic chord as it is preceded. *See* example:—

Ex 59.



Following Dr. Day and Sir G. Macfarren, some theorists allow that there is "no had effect when the third of the first chord is either the root or the fifth of the second chord," the result of which rule is that we have the following chords, derived from the common chords of C, as not causing false relation, each of which, according to the above argument, I maintain should be classifiahle as chromatic on that very ground:—

Ex. 60

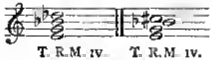


The chords within brackets are the ones from which the examples are worked out.

It is probable that the rule works out further than the author intended it; in any case, according to the above finding, no fewer than seven of the above chords are unrecognised as chromatic hy followers of Dr. Day, while the first three are incompatihle with a system which is founded on an acoustical hasis and the twelve-note chromatic scale, as they can undoubtedly be used without causing false relation, and without having to resort to enharmonic alteration.

Our scheme necessarily widens the ordinary view, hut in all cases the ear must decide.

CHROMATIC NOTATION.—It has been customary to call the fundamental discords borrowed from the keys of the dominant, and sub-dominant, by the appellation of supertonic and tonic respectively; but as a recognition of the enlarged boundaries of modern tonality would only lead to confusion if this principle were carried out, I would suggest that chromatic chords might be named as being "from the key of the dominant," or "from the key of the flat third," &c., this being, I think, more simple and convenient, and in order to facilitate chromatic analysis, I would suggest that the sign T might also be used to show the *tonal relationship* :—



Thus the plan of analysis advocated is not according to root or ground note, nor fictitious assumption of chromatic alteration of notes, but according to the tonality of the intruding element. To summarise the whole :—

SUMMARY.—We have in the principle of Chromaticism one that I think goes *to the root* of the matter, and by which the chromatic element is eliminated, so to speak, and classified in a scientific manner—(1) as *chromatic tonality*, and (2) in the constituent *chromatic chords*. (3) Modern tonality as it exists, to all intents and purposes, is considered as possessing a *dual aspect*, and, consequently, (4) chords from the tonic minor are classified as *modally* related, and not as chromatic. (5) It is pointed out that *where a chromatic chord sets up a foreign tonality*, the confirmatory chord (if any) should occupy an accented beat, the effect being strengthened by a simulative cadential movement of the bass; where no modulation ensues, the reverse conditions may be expected. (6) The true *harmonic chromatic scale* advocated is that which represents all tonalities which have any harmonic connection, *i.e.*, have any note in common with the central scale and from which selections can be made to meet current needs. Any chord whatsoever belonging to the keys chromatically classified, whether triad or dominant discord, is available for chromatic use in the central key. (7) The *relationship of keys* (with duality of key as a basis) is based upon their inherent relationship as well as upon the lesser effect of key disturbance, and not on the mathematical ratio of the tonics. (8) The *augmented sixth* is shown to be derived from *duality of key* or mode, and not from a dual root. (9) Objection to upward resolution of the minor thirteenth in the augmented sixth is met by a new law

evolved, which, with the aid of *cadential effect*, accounts for the *irregular resolution of higher discords*, operating especially where the dominant influence is weak or *indefinite*. (10) A means of distinguishing the *tonality of synonyms* is also mentioned. (11) The principles of *melodic* and *harmonic substitution* are set forth. (12) It is shown that there cannot be *false relation* where there is modulation. Moreover, any single chord not causing false relation under the usual circumstances of such phenomenon can be accounted chromatic; and, finally, (13) *chromatic analysis* is advocated according to the tonality of the intruding element.

In conclusion allow me to thank you for your patience in listening to what is necessarily an abstruse subject. With regard to the summary and classification of chromatic harmony, which I have put before you, allow me to reiterate that the results of the scheme should not in any way affect the usual student's course of harmony, but rather be considered as suitable for a philosophical aftercourse, when the why and the wherefore might be appropriately dealt with; in fact, as the foundation of what might be called "composers' harmony." Perhaps I may also not inaptly quote from an article by Sir Hubert Parry in *Grove*, in which he says "everything is admissible which is intellectually verifiable, and what is inadmissible is only relatively so. . . . . The history of harmony is one of an ever-increasing richness of combination . . . . and of enlargement of the bounds of the keys, so that a greater number and variety of chords can be used in relation to one another." Finally then, Mr Chairman, Ladies, and Gentlemen, I shall be only too pleased if my efforts may have done something towards presenting a clearer view of the wonderful co-relationship which characterises modern tonality.

DISCUSSION.

THE CHAIRMAN.—Our first duty, which is also a pleasure, is to thank Mr Westerby for his very learned paper on a very abstruse subject, and we have particularly to thank him for his kindness in reading his paper at such short notice. With regard to the subject, I confess I have no particular theories myself on chromatics. There are some things with regard to the notation of chromatics that sometimes are a little puzzling. For instance, in the chord before us, consisting of the notes (reckoning upwards) F sharp, A, C, and E flat, the

highest note is doubtless theoretically E flat; but in some cases the context or the resolution might make me think of it and write it as D sharp simply as a matter of ear and feeling. If any lady or gentleman has any observations to make on the subject we should be very glad to hear them.

Mr. THELWALL.—I should like to ask the author whether he would be prepared to consider the question of these chords from the strictly equal temperament standpoint. It is a subject that I have thought about a good deal, and I think that if musicians would take the mathematical series of the tempered scale, expressed in a convenient form, and consider their chords and combinations in reference to the series, they would get interesting results. This series has been overlooked very much both by acousticians and musicians. If V represents the vibration number of any note whatever, and R the ratio of the mean semitone (which is, as you know, $\sqrt[12]{2}$), we get the following series VR^0 VR^1 VR^2 VR^3.....up to VR^{12}, which is, of course, the octave of the first note. By means of this series we can express everything in equal temperament language. This series is perfectly general, but, for many purposes, it is convenient to refer all the sounds to the tonic, in which case we can represent the vibration number of the tonic by T, and we then have the tonic series .—

$$TR^0\ TR^1\ TR^2\ TR^3 \ldots\ldots\ldots\ldots TR^{12}$$

Then the first thing we get from that is a major scale by selecting the notes—

$$TR^0\ TR^2\ TR^4\ TR^5\ TR^7\ TR^9\ TR^{11}\ TR^{12}$$

in which the arrangement of tones and semitones is perfectly clear. In the same way we can get from the same series any chord we want—*e.g.*, the major triad of the tonic, which we may represent in the general series—

$$\begin{matrix} VR^7 & & TR^7 \\ VR^4 & \text{or in the tonic series} & TR^4 \\ VR^0 & & TR^0 \end{matrix}$$

Similarly, if we substitute TR^4 for TR^4, we get the minor tonic triad. If we like we can refer everything to the tonic. In that way the dominant chord would be represented by—

$$\begin{matrix} TR^2 \\ TR^{11} \\ TR^7 \end{matrix}$$

If we adopt this equal temperament system we get everything in simple forms—twelve notes, twelve keys, twelve major

scales, twelve minor scales, twelve major triads, twelve minor triads, and so on. The only thing of which we do not get twelve is the diminished seventh chord, of which we only get three forms, because every other form is merely the inversion of one of the first three.

It seems to me that if these matters were examined from the equal temperament standard new ideas of music must arise. For instance, with regard to the question of key, certainly from the equal temperament standpoint there are only twelve keys. If you take any key you will find eight other keys which are nearly related to it, and only three which are remote. I will not pursue the subject, but I thought I should just like to make the suggestion, and I hope very much that musicians will consider some of these points.

Mr. Westerby.—All I have to say about it is that I considered the subject in my paper from the present standpoint. If one could agree to restrict the actual number of keys to twelve, it would simplify matters very considerably; but I am afraid that any alteration of the kind is somewhat Utopian.

Mr. Thelwall.—I have studied the question of temperament carefully, and it seems to me that practically the whole of music is based upon equal temperament, and if it be so, then the twelve-key theory is the true theory, and the unlimited number of keys theory is not true, and it surely must be for the good of music that what is the true theory should be thoroughly investigated.

Mr. Statham.—But surely when you come to an instrument with changeable notes like the violin, you cannot say it is based on equal temperament. The violinist plays according to feeling, and not according to theory.

The Chairman.—In certain cases the practice of violinists is contrary to theory—*e g*, theoretically G sharp is lower than A flat, but the violinist usually plays it sharper if it is the leading note of the scale of A. The difference is very slight, but to screw a leading note up a little certainly does seem to put more significance into it. Choirs also should do something of the same kind when they are singing unaccompanied, and if they do not, their pitch falls.

Mr. Thelwall.—I think that has nothing really to do with the mathematical theory. My belief is that what the violinist does in that case is to make a note sharper or flatter because he feels he can get a better effect by doing so. I have spoken to one very eminent violinist, who says he plays by equal temperament, but others say they do, as you say, sharpen the leading note. That is the very opposite of the acoustical theory, and among those who talk a good deal about true

intonation, apparently almost every one has got his own particular theory; and we are surely better off with one standard than with several different standards, in which every man is a law to himself. I understand that the violinist can produce certain effects, and beautiful effects, by modifying certain notes to please the ear, but I think that is an æsthetic and not a scientific principle.

A vote of thanks was then passed unanimously.

APPENDIX.

List of Contents for the last two years of the publications of the International Musical Society.

[E = English, F = French, G = German, I = Italian]

ZEITSCHRIFT (Monthly Journal).

In addition to the Leading Articles specified below, each number (about forty pages 8vo) contains copious polyglot information under the following heads —(*a*) General news, (*b*) News connected with Academical Institutions, (*c*) Correct Lectures, (*d*) Performances of ancient music, (*e*) Proceedings of Branches, (*f*) Queries and Answers, (*g*) Book reviews, (*h*) Lists of current articles from Journals, (*i*) Music reviews. The whole of the contents is original matter.

FIRST YEAR

PARTS 1 2. OCTOBER-NOVEMBER. 1899.

Introductory (G)—O. Fleischer (Berlin).
Music in England (E)—C. Macleau (London).
Bayreuth 1899. Festspiele (G.)—W. Kleefeld (Berlin).
The Morsius Album (G.)—M. Seiffert (Berlin).
An old Lute-book (G.)—J. Wolf (Berlin).

PART 3. DECEMBER, 1899.

Can the remains of ancient Greek music be now performed? (G.)—O. Fleischer (Berlin).
Musical life in Russia (G.)—N. Findeisen (Petersburg).
Tristan at the Nouveau Théâtre (F.)—L. Dauriac (Paris).
Review of Dechevrens' "Études de science musicale" (F.)—M. Lussy (Paris).

PART 4. JANUARY, 1900.

Vocal teaching in the higher schools (G.)—E. Boehm (Berlin).
First complete List of Members.

PART 5. FEBRUARY, 1900.

Concert music for the Concert-room (G.)—O. G. Sonneck (New York).
The editions of collected works of Handel and Bach (G.)—M. Seiffert (Berlin).
The text of Braga's Serenata (G.)—J. Bolte (Berlin).
Mozart's "Freimaurer-Gesellenlied" (G.)—E. Vaupel (Vienna).

PART 6. MARCH, 1900.

Letter from Florence (I.)—E. del Valle de Paz (Florence).
Music in England (E.)—C. Macleau (London).
The Bach Clavicembalum and its reconstruction (G.)—O. Fleischer (Berlin).
The Fitzwilliam Virginal Book (G.)—M. Seiffert (Berlin).

PART 7. APRIL, 1900.

Music in Rome (G.)—F. Spiro (Rome).
Concerts in Paris (F.)—M. Chassang (Paris).

PART 8. MAY, 1900.

Vocal Teaching (F.)—Lydia Torrigi Heiroth (Geneva).
Concerts in Vienna (G.)—R. Hirschfeld (Vienna).
Popular concerts and Music over production (G.)—G. Münzer (Breslau).
The promoters of Church music in Moscow (G.)—N. Findeisen (Petersburg).
Second complete List of Members.

PART 9. JUNE, 1900.

Saint Saens as author (F.)—A. Pougin (Paris).
Music in Paris (F.)—M. Chassang (Paris).
Opera in Vienna (G.)—R. Hirschfeld (Vienna).
Vocal teaching in grammar schools (G.)—R. Starke (Breslau).

PART 10. JULY, 1900

J. P. E. Hartmann (G.)—W. Behrend (Copenhagen).
Music in Spain (F.)—E. L. Chavarri (Madrid).
Popular Concerts (G.)—S. Levysohn (Copenhagen).
36th Congress of the Allgem. Deut. Musik Verein (G.)—H. Goldschmidt (Berlin).
Chamber-music Festival in Stuttgart (G.)—K. Grunsky (Stuttgart).
Handel Festival in Bonn (G.)—M. Seiffert (Berlin).

PART 11. AUGUST, 1900.

Man's Alto in English Music (E.)—A. H. D. Prendergast (London).
Musical Congress at the Paris Exhibition (F.)—M. Chassang (Paris).
Netherlands Toonkunstenaars Vereeniging Festival (G.)—W. N. F. Sibmacher Zijnen (Rotterdam).
Music Festival at Zurich (G.)—K. Nef (Basel).
The 14th Silesian Music Festival (G.)—T. Rothkegel (Neisse).
Lortzing Festival at Pyrmont (G.)—G. R. Kruse (Ulm).
Bruckner's Mass in F minor (G.)—K. Grunsky (Stuttgart).

PART 12. SEPTEMBER, 1900

Opera in Russia (G.)—N. Findeisen (Petersburg).
Music in England (E.)—C. Maclean (London).
The Music of the Oberammergau Passion Play (E.)—A. H. D. Prendergast (London).
The Congress of Musical History (F.)—J. G. Prod'homme (Paris).
On Musical Magazine Literature (G.)—O. G. Sonneck (New York).

Total—406 pages, fully indexed.

SECOND YEAR.

PART 1. OCTOBER, 1900

Concerts in Russia (G.)—N. Findeisen (Petersburg).
Music in Stockholm (G.)—A. Lindgren (Stockholm).
Music in Spain (F.)—E. L. Chavarri (Madrid).
The Sonata, ancient and modern (F.)—E. Pierret (Paris).
Chronological Catalogue of Handel performances according to the Chrysander edition, 1899-1900 (G.)—E. Krause, (Hamburg).

PART 2. NOVEMBER, 1900

The English Provincial Festivals (E.)—J. A. Fuller-Maitland (London).
Music at the Paris Exhibition (F.)—M. Chassang (Paris).
Leipzig Symphony-Concerts 1899-1900 (G.)—D. Schultz (Leipzig).
Mental overstraining in children (G.)—C. H. Richter (Geneva).

PART 3. DECEMBER, 1900.

Tre Giorni son che Nina (E.)—W. Barclay Squire (London).
A collection of National Hymns (G.)—H. Abert (Berlin).
Robert Radecke (G.)—G. Beckmann (Essen).

PART 4 JANUARY, 1901.

On musical scholastic institutions (G.)—K. Navratil (Vienna).
The musical season in Paris (F.)—L. Dauriac (Paris).

PART 5. FEBRUARY, 1901.

The composer of the Marseillaise (F.)—J. Tiersot (Paris).
Italian or Native language? (G.)—O. G. Sonneck (New York).
Music in Spain (F.)—E. L. Chavarri (Madrid).
Musical life in Rome (G.)—F. Spiro (Rome).
Concerts in Paris (F.)—M. Chassang (Paris).

PART 6. MARCH, 1901

A simplification of accidentals and key signatures (G.)—G. Capellen (Osnabruck).
Giuseppe Verdi (G.)—H. Abert (Berlin).
Third complete List of Members.

PART 7. APRIL, 1901.

Music as an impression (O.)—F. Rosenthal (Vienna).
Registration of Music Teachers in England (E.)—J. W. Sidebotham (Manchester).

PART 8. MAY, 1901

Notice regarding Supplement Volumes of the I M G —
Old music in old garments (G.)—O G Sonneck (New York).
An Elegy on Henry Purcell (E.)—W. Barclay Squire (London)
Sir John Stainer (E.)—C Maclean (London)
Supplement to Simplification of accidentals, &c (G.)—G Capellen (Osnabrück)

PART 9 JUNE, 1901

Hans von Bülow's Nirvana (E.)—C A Barry (London).
Music and the teaching profession (G.)—O Fleischer (Berlin)
Scores (G.)—H. H. Stepham (Leipzig)

PART 10. JULY, 1901

Woman and the musical education of the young (G.)—Louise Muller (Darmstadt)
Stanford's New Opera (E.)—C. Maclean (London)
Theatres and Concerts in Paris (F.)—M. Chassang (Paris)
37th Congress of the Allgem Deut Musik-Verein (G.)—F Stein (Heidelberg).

PART 11. AUGUST, 1901

Musical life in Russia (G.)—N. Findeisen (Petersburg).
Bach Festival at Bethlehem, Pennsylvania (E.)—A. A. Stanley (Ann Arbor).
Music in London (E.)—C Maclean (London)

PART 12. SEPTEMBER, 1901

Bayreuth Impressions (G.)—M. Koch (Breslau).
The London Opera Season (E.)—J. A Fuller-Maitland (London).
A Traveller's note from Delphi (E.)—C. F. Abdy-Williams (London)

Total—462 pages, fully indexed.

SAMMELBANDE (Quarterly Magazine).

FIRST YEAR.

PART 1 OCTOBER-DECEMBER 1899.

A chapter on comparative musicscience (G.)—O. Fleischer (Berlin)
Armenian Church Music (G.)—K. Kewortkian (Etschmiadzin)
The music theory of Johannes de Grocheo (G.)—J Wolf (Berlin)
On Handel's clavier-works (G.)—M Seiffert (Berlin).
Music-guild in Friesland (G.)—M Seiffert (Berlin)
Dufay and his time (G.)—J Wolf (Berlin).

PART 2 JANUARY-MARCH 1900

Swedish musical history 1630-1730 (G.)—T Norlind (Lund)
On Schutz (G.)—M Seiffert (Berlin).
Hamburg Opera Orchestra 1678—1738 (G.)—W Kleefeld (Berlin)
W. F Bach's summons to Darmstadt (G.)—W Nagel (Darmstadt)
Beethoven's Rondo in B flat (G.)—E. Mandyczewski (Vienna).
On Programme music (G.)—R Hohenemser (Frankfort).
An unknown music collection (G.)—H Botstiber (Vienna).

PART 3, APRIL JUNE 1900.

The new Aristoxenus find at Oxyrhynchos (G.)—H. Abert (Berlin)
Studies in Icelandic Music (G.)—A Hammerich (Copenhagen)
Castilian musical folk lore of the 16th century (F.)—F Pedrell (Madrid).
Samuel and Gottfried Scheidt (G.)—A Werner (Bitterfeld).
Graun as Opera-composer (G.)—A. Mayer-Reinach (Strassburg)
J. V Meder's Stammbuch (G.)—J Bolte (Berlin)

PART 4. JULY SEPTEMBER, 1900.

History of Submission (G.)—G. Lange (Breslau)

Purcell and Nicola Matteis (E.)—J. Frederick Bridge.

Mestwlribi, the Troubadour of the Caucasus (G.)—B. Kotganow (Tiflis)

Revival of musical ilfa in Italy (G.)—O. G. Sonneck (New York)

Bach's Matthew Passion and the Protestant faith (G.)—F. Bachmann (Berlin)

Six Trent Codices (G.)—J. Wolf (Berlin).

Notes on Spontini and Paganini (G.)—L. Geiger (Berlin)

Total—687 pages, fully indexed

SECOND YEAR.

PART 1. OCTOBER—DECEMBER, 1900.

Dunstable and the various settings of O Rosa Bella. (E.)—Cecil Stainer (London)

Italian opera orchestra in the 17th Century (G.)—H. Goldschmidt (Berlin)

M. Weckmann and the Musical College at Hamburg (G.)—M. Seiffert (Berlin).

The Musico-historical importance of the old Bohemian Czernohorsky School (G.)—O. Schmidt (Dresden).

The Five-four bar in popular Finnish music (F.)—I. Krohn (Helsingfors)

History of Music in Finland (G.)—H. Pudor (Berlin)

From an old library (G.)—G. Tischer and K. Burchard (Berlin)

Discussion on the Trent Codices (G.)—G. Adler and O. Koller (Vienna) and J. Wolf (Berlin)

PART 2. JANUARY MARCH 1901

Researches into the origin of the organs of the ancients (E.)—Kathleen Schlesinger (London).

The Elche Festival, or the lyric liturgic drama on the Death and Assumption of the Virgin (F.)—F. Pedrell (Madrid)

Three Clavier-compositions wrongly ascribed to Bach (G.)—R. Buchmayer (Dresden).

The development of music in Russia in the first half of the 19th Century (G.)—N. Findeisen (St. Petersburg)

Settings of the Stabat Mater (E.)—C. B. Edgar (London).

The new "Chorordnung" of R. v. Liliencron (G.)—F. M. Rendtorff (Preetz).

Discussion on the Trent Codices (G.)—G. Adler (Vienna)

PART 3. APRIL-JUNE, 1901

An unprinted Letter by Psellus (born 1018) on music (G.)—H. Abert (Berlin)

Notes on an undescribed Collection of English 15th Century Music (E.)—W. Barclay Squire (London)

J. H. Ahlström, a bio-bibliographical Sketch (G.)—J. Wolf (Berlin).

Johann Christian Bach (G.)—M. Schwarz (Berlin)

J. P. E. Hartmann (G.)—A. Hammerich (Copenhagen) Translation from the Danish by L. Freifrau von Liliencron

Suggestions towards a Theory of Harmonic Equivalents (E.)—W. H. Hadow (Oxford)

PART 4. JULY-SEPTEMBER, 1901

On the Chinese Musical System (F.)—A. Dechevrens (Paris)

Swedish School-songs in the Middle Ages &c. (G.)—T. Norlind (Lund).

Some documents regarding the Music of the Grande Écurie du Roi (F.)—J. Écorcheville (Paris)

A set of Bach's proof sheets (E.)—J. Fuller-Maitland (London).

A Bach-Conjecture (G.)—F. Spiro (Rome)

Gottsched and J. A. Scheibe (G.)—E. Reichel (Berlin)

A "Bet Ruf" of the Swiss Alps (G.)—A. Schering (Leipzig).

Polish Dances (G.)—F. Starczewski (Warsaw)

The Old Hall Manuscript (E.)—W. Barclay Squire (London).

Total—722 pages, fully indexed.