



J.S. BACH'S

FIFTEEN TWO VOICED INVENTIONS

ANALYSED FOR SELF-INSTRUCTION
IN
POLYCHROMATIC NOTATION
BY

BERN BOEKELMAN

Pr. net.



PREFACE.

Although these Inventions were written as early as the year 1722-3, the first edition (printed by Breitkopf & Härtel) did not appear until 1763.

It is probable that Bach originally intended them as a guide to extempore playing, since the manuscript title reads;—"not merely how to obtain good Inventions (ideas), but also how to develop them properly."

On the ground that the profound study of Bach's Music not only increases the knowledge of music but also prevents the decay of inventive power, these pieces cannot be too highly recommended to young composers.

The all important point in the playing of Bach is the attainment of a singing tone, without which the interpretation of these Inventions is impossible;—something more easily done on the clavichord or the later harpsichord than on our present pianoforte.

The intelligent grasp of these charming pieces, far from leading to piano thumping, greatly augments the musical feeling; while analytical study of their composition is the sure road to a sound musicianship. To such analysis the color-notation, used in this edition, affords, for the first time, a clue which is within the reach of students unacquainted with counterpoint.

Colored brackets denote a similarity between phrases, subjects and other matter printed in a similar color. Sections and subsections are marked with red // and / respectively.

The indication of the key under the staff will be particularly helpful to beginners who are cultivating their feeling for tonality, and for the effects of modulation. To stimulate this, capital letters have been used to indicate *major* keys and small letters *minor*.

Dynamic signs which appear between the staves apply to both hands.

The ornamentation may be attempted from the outset, or, the embellishments omitted until a smooth execution can be attained. Compositions which do not charm without ornamentation are fit only for the waste-paper basket. The art of embellishment has no arbitrary rules. Once acquainted with good usage musical taste comes to the front. As in architecture, location, construction and surroundings change much. The various manuscripts, autographs and editions of Bach show how much opinions vary and how large a field exists for opposing views. A wide variation between the marks of tempo and expression exists in the several authentic editions.

In the harmonic scheme, the notes in brackets should be used only when the harmonies, which Spitta calls *titbids* for refined harmonists, are played on a second piano, harmonium or organ. They do not belong to the fundamental harmony.

The order in which the Inventions occur in the manuscript found among Friedemann Bach's posthumous papers should indisputably have the preference:—1, 4, 7, 8, 10, 13, 15, 14, 12, 11, 9, 6, 5, 3, 2.

Besides many printed editions the following manuscripts have been compared:—The autograph copy from Friedemann Bach's effects. The autograph copy found among Spohr's effects. (These in possession of the Royal Library in Berlin.) The autograph copy from Bitter's effects, now in my own possession.

New York, Easter 1900.

Bern. Boekelman.

Harmonic Schemes

FOR

A Second Piano
(or HARMONIUM)

A SUPPLEMENT TO THE COLORED EDITION

OF

BACH'S TWO VOICED INVENTIONS

BY

Bern Boekelman.

Toni Walber
3.85

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Inventio I.


Harmonic Scheme.


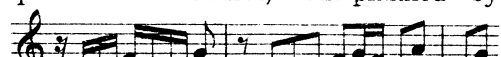
Bern. Boekelman.

$\text{♩} = 100.$

6 9 12 15 18 22

Remarks.

Variants:— According to the *Friedemann Bach MS.*, in measures 1 and 2 the seventh eighth-note, upper voice, reads w instead of $\text{w}^\#$; measure 8, the first eighth-note, upper voice, w , measure 20, the seventh eighth-note, upper voice, w . *The Spohr MS.* offers the following variant of the principal motif, , the small notes having been added later, measures 1 and 2, the seventh eighth-note, upper voice, w instead of $\text{w}^\#$; measure 8, last eighth-note, upper voice w ; measure 14, seventh eighth-note, upper voice, no embellishment, the final chord is marked arpeggio ($\{$). *The Bitter MS.* reads; measures 1 and 2 seventh eighth-note, upper voice, w ; measure 5, upper voice, third eighth-note, no embellishment; measure 6, third eighth-note, lower voice, w ; measures 7 and 8, seventh eighth-note $\text{f}^\#$ and c , w ; measure 11, upper voice, eighth eighth-note ∞ ; variants of measures

13 and 14  There is no octave in the lower voice of the final chord. Comparison of the theme of this Invention with that of the first fugue in the Well-tempered Clavichord is interesting. If the one be likened to the entrance of a beautiful church the other would suggest the gigantic portal of a cathedral, both planned by the same architect. 

Expression:— Let the Invention be executed with fervor, like the brief morning prayer of several children. The well defined motif passes through the cycle of contrapuntal devices, and opens this pretty "Album for Youth!"

Embellishments:— Normally, the upper note of an embellishment is diatonic. When the upper interval rises a whole step the lower note should descend a half step and vice versa.

Inventio I.

♩ = 100.

p

C.

G.

p

C.

crescendo

d.

a.

mf

G.

a.

d.

C.

F.

cresc.

C.

F.

C.

rallent.

f

22

The score is written for piano in G major, 3/4 time. It consists of seven systems of two staves each. The first system starts with a tempo marking of quarter note = 100 and a dynamic of piano (p). The second system begins with a forte (f) dynamic. The third system has a piano (p) dynamic. The fourth system includes a crescendo marking. The fifth system starts with mezzo-forte (mf) and ends with piano (p). The sixth system begins with a forte (f) dynamic. The seventh system includes a crescendo (cresc.) and a rallentando (rallent.) marking. The score is heavily annotated with red and green fingerings, asterisks for accents, and various articulation marks. Measure numbers 1, 3, 4, 5, 6, 9, 12, 15, 18, and 22 are indicated at the end of their respective systems.

Inventio II.

Musical score for "Inventio II." in G major, BWV 999, for piano. The score is in 3/4 time with a tempo marking of quarter note = 84. It consists of 27 measures. The piece is marked *p* (piano) and *legato*. The score includes various articulations such as accents, slurs, and trills. Fingerings are indicated by numbers 1-5. The piece concludes with a trill and a fermata.

Measure numbers: 3, 7, 11, 15, 19, 23, 27.

Dynamics: *p*, *mf*, *f*, *cresc.*, *rallent.*

Articulations: *legato*, accents, slurs, trills.

Fingerings: 1, 2, 3, 4, 5.

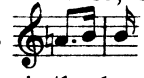

Inventio II.

Harmonic Scheme.

Bern. Boekelman.

Remarks.

Variants:— *The Friedemann Bach MS.* gives this Invention as N^o XV; in measure 2, the fourth quarter-note is trilled; measure 14, ♯; measure 24, ♯; measures 6 and 18, fourth quarter-note, upper voice, without ♯; measure 16, last quarter-note, upper voice, and measure 26, lower voice ♯; measure 27, lower voice, lacks the octave. *The Spohr MS.* reads; measure 2, last quarter-note *tr*; measures 4 and 12, last quarter-notes, lower voice, ♯ instead of *tr*; measure 26, third quarter-note, no ♯; measure 27, lower voice lacks the octave. *The Bitter MS.* almost uniformly shows the last quarter-note of the theme trilled; in measure 26, the last quarter-note, *tr*; measure 6, upper voice, last quarter-note, not embellished; measure 12, upper and lower voices, last quarter-note, *tr*; measure 14, last quarter-note, ♯; meas-

ure 15, third quarter-note, *tr*; measure 16, last quarter note, lower voice ♯; measure 18 reads  measure 26, slurs, ; measure 27, an octave in the lower voice.

Expression:— The broad theme appears like a question open for discussion, an intricate case in which a conclusion is hard to reach. Both parties argue in a beautiful musical language. The canon is kept intact. Analyse every phrase, observing its dynamics; and try to unravel the question at issue (in a singing tone).

Embellishments:— When the embellished note is anticipated by the preceding note, begin with the upper second unless this anticipation and repetition are component parts of the melody.


Inventio III.

Harmonic Scheme.

Bern. Boekelman.

Remarks.

Variants:— In the *Friedemann Bach MS.*, this Invention has N^o XIV; nearly every measure throughout the Invention has a legato slur; measure 3, the third eighth-note, upper voice, reads ♯; measures 4 and 47, second eighth-note, ♯ instead of ♮; measures 12 and 54, the second eighth-note not embellished; measures 27-28, 29-30 and 31-32 have no signs for trill; measure 35, first eighth-note ♯; measures 38, 40 and 41, second eighth-note not embellished; measure 59, lower voice, the quarter-note *a* is dissolved into two eighth-notes. *The Spokr MS.* shows legato slurs over nearly every measure; measures 3 and 46 read ♯; measures 4 and 47, ♯ not ♮; measures 12 and 54, ∞; measure 24, the last sixteenth-note is connected with the first note of the measure following; measures 27-28, 29-30, 31-32 without *tr*; measures 38 and 59, second eighth-note not embellished; measure 59, lower voice, shows a quarter-note on *a* instead of two eighth-notes. In the *Bitter MS.* the slurs are much more carelessly indicated; measures 3 and 46 show a ♯;

measure 4 ♯ not ♮; measure 47, not graced, measure 4 dissolves the last eighth-note into , measures 12, 24 and 54, not embellished; measures 27-28, 29-30, 31-32 have signs for extended trills, measure 39, first eighth-note, upper voice, ♯; measures 40-41, no embellishments; measure 59, upper voice, ♯; and in the lower voice, a quarter-note instead of two eighth-notes.

Expression:— The melody of the theme moves in the compass of a fifth; the rhythm inclines to dance form. The cosy, jolly and naive character of the theme reminds one of a capering child. The rhythmic element is concealed in the harmony (compare the harmonic scheme), and should be brought out with an elastic touch.

Embellishments:— If an embellishment falls on an empty fifth, i. e., a fifth without its third, it is more tasteful to begin with the upper second. See measures 12, 24, 38, 54, 59.

Inventio IV.

♩ = 80.

The musical score for 'Inventio IV' is presented in a grand staff format, consisting of a treble clef and a bass clef. The tempo is marked as quarter note = 80. The piece is in 3/8 time and contains 52 measures. The score is annotated with various dynamics and articulations, including *mf*, *f*, *fp*, *cresc.*, *sempre f*, and *p*. Red and green markings are used throughout the score to highlight specific passages, fingerings, and articulations. The score is divided into systems, with measure numbers 7, 15, 23, 30, 37, 44, and 52 indicated at the end of each system. The piece concludes with a final cadence in the bass clef.

Inventio IV.



Harmonic Scheme.

Bern. Boekelman.

♩. = 80.

Remarks.

Variants:— *In the Friedemann Bach MS.* this Invention is No II; in measure 17, the upper voice is not embellished; measures 19 and 29, a simple w ; measure 37, second eighth-note, upper voice, w ; measure 51, not embellished. *In the Spohr MS.*, measure 17 is not embellished. *In the Bitter MS.*, measure 17 is without embellishment; measures 19 and

29 have a sign for extended *trm*; measure 48, ; measure 51 

Expression:— The character of the theme is tiny and neat, almost self-satisfied. Its rhythm suggests the motion of a menuet. The principal accent falls on the first beat of the second measure (diminished chord of the seventh). The *staccato* of the counter-theme should be played with easy pointed fingers and sound like the *pizzicato* accompaniment of a dance.

Embellishments:— In measures 37 and 51, upper voice, - on account of the empty fifth (a fifth without its third) against the lower voice, it is better to begin the ornament with the upper second.

THE SIGNS EXPLAINED.

Red denotes the principal subject.

Green denotes the first counterpoint.

Purple denotes the second counterpoint.

Yellow the third counterpoint.

Black indicates an episode, a transition, or free counterpoint.

▣ indicates canon-form.

◆ indicates parts of counterpoint, i. e. when the secondary subject is not continually used.

↑ indicates that the subject is not accompanied by its own counterpoint.

▶ indicates inversion of subjects.

● Notes with large heads signify augmentation.

♯ Notes with small heads signify diminution.

// and / indicate sections and subsections respectively.

⋯ a guide for Voice-reading.

* An asterisk indicates a change from the original form.

○ indicates omission.

┌ ┐ Brackets in black or in color indicate similarity between the music enclosed and that printed in the color of the bracket.

↑ ↓ indicate whether the notes are to be played by the right or the left hand.

Capitals under the staves denote that the key indicated is major; small letters denote that it is minor.

Inventio V.

Harmonic Scheme.

Bern. Boekelman.

♩ = 96.




2 5






8

11 14

17 20

Remarks.

Variants:— *In the Friedemann Bach MS.* this Invention is No XIII; with the exception of the second quarter-note of the last measure, which gives a trill on f, there are no embellishments in this Invention. *The Spohr Ms.* reads, 1, 2, 9, 10, 11, 17, 24, 28, ; measures 5, 12, 20 second eighth-note, upper voice, ; measure 1, first quarter-note, lower voice, . *The Bitter MS.* reads measures, 9, 10, 13, 22, 24, 25,

27 ; measures 12, 16, 17, 21, 23, 28 ; measures 11, 20, 26, no embellishments; measure 1 ; measure 2 ; measures 5 and 6 ; measure 32, second quarter-note, *tr*; measure 1, lower voice, no embellishment; measures 3, 7, 14, 18 and 29 have no ornaments.

Inventio V.

f = 96. *f* 423 2 1 423

121 (w) *E♭ Red.* * *a* *b*

3 4 2 4 *cresc.* *c* 3 5 3 1 2 3 *f* 2 4 2 2 1 4 3 *f* 4 5 4 *Red.* * *B♭(B).* * *Red.* * 5

cresc. *E♭* *Red.* * 8

423 423 423 *f* *mf* *pf* *f* *b* *a* *b* *a* *b* *a* *Red.* * *A♭* *E♭* *B♭(B).* *c.* 11

b 5 3 4 2/3 1 3 4 5 3/4 3/4 5 3 2 4 *cresc.* *f.* 14

f 423 *p* 2 1 423 *Red.* * *Red.* * *Red.* * 17

cresc. 3 5 4 2 4 4 2 4 3 4 2 4 2 1 2 1 2 1 *fp* *b* *b* *mf* 20

b♭(b). *Red.* * *mf*

23 26 29 32

Inventio VI.

$\text{♩} = 144.$
p dolce
p cantabile
pp
p
cresc.
p
f
pp

E. cantabile (A.) (E.) dolce A. 7

B(H.) 14 20

fp f 23 cresc. mf 26

cresc. allargando f 29 32

Technic:— Analysis of the figuration in the counter-subject affords three distinct passages marked a, b, c. These should be practiced separately and jointly. When the fingers are stretched apart, to span the large intervals, the wrist should be kept very pliable. The Invention may be divided for practice into nine groups;— 1-4-8-11-15-19-22-24-28-32.

Expression:— A positive self-assurance, mixed with sweet

roguishness and caprice may aid to give the principal theme a decided character. A motion rotating uniformly in continuous rings through its orbit, affords the contrasting subject. The execution should be unconstrained and hilarious, like a dance with garlands of flowers.

Embellishments:—

A trill without the concluding turn in measure 32.

II. Piano ossia Harmonium.

Inventio VI.

Harmonic Scheme.

Bern. Boekelman.

♩ = 144.

dolce pp p pp p 7

cresc. 14 20

II. Piano ossia Harmonium.

dolce legato
pp 27

p *cresc.* 32

f *p* 38 44

pp *p* 50

p *cresc.* *f* 57 62

Remarks.

Variants:— *The Friedemann Bach MS.* gives this Invention as No XII. *The Bitter MS.*, measure 58, shows an extended trill in the upper voice.

Technic:— The transition motif (measure 4) requires special attention. Use any triad or chord of the seventh as a preparatory study. The theme is a simple scale. Nearly the same scale in contrary motion is used as a counterpoint. The transition motif (measure 4) drawn from the theme enlivens the whole composition. This Invention is the gem of the entire collection.

Expression:— In form the Invention resembles a sonatina divided into two limited parts, and consisting of a dialogue, amorous and interrupted by giggling. The conversation should be given in a full singing tone; whereas the giggling should be executed in an easy jesting way, legato without pressure. Among the Celtic dances of the 12th century, a dance song, "Fer Gigaoila", existed, the refrain of which consisted of a kind of humorous giggling in short catches of the breath, accompanied by sudden starts of the body. (O' Curry.)

cantabile
p legato
dolce
 B(H). E. B(H). *pp* *cantabile* E. B(H). 27

p
 32

cresc.
 c#. *cresc.* B(H). *cresc.* 38

f
 (c#) 38# *mf* *cantabile* *p legato* *dolce* A. 44

pp *dolce* *p* *cantabile* A. E. *pp* 50

p *poco cresc.* 57

pp *cresc.* *f* 62

Inventio VII.

♩ = 80.

The musical score for 'Inventio VII' is presented in two staves, treble and bass clef. It begins with a tempo marking of ♩ = 80. The score is annotated with various dynamics and performance instructions. Key markings include *mf*, *p*, *f*, *fp*, *cresc.*, and *ritard.*. Performance instructions such as 'Red.' (likely 'Redoublement') and 'b' (likely 'basso continuo') are interspersed throughout. The score is divided into measures, with measure numbers 5, 10, 13, 16, 19, and 23 clearly marked. The piece concludes with a *ritard.* marking and a final measure number of 23.

Inventio VII.

Harmonic Scheme.

Bern. Boekelman.

Remarks.

Variants:— *In the Friedemann Bach MS.*, this Invention is No III; in measure 2, the fourth quarter-note reads ♯; measure 3, the third quarter-note, ♯; measures 4 and 5, first quarter-note, upper and lower voices, ♯; measure 5, third quarter-note, lower voice, ♯; measure 6, fourth quarter-note, lower voice, ♯; measure 11, third quarter-note, upper voice ♯; measure 12, second quarter-note, lower voice, ; measure 13 second quarter-note, ♯; measure 14, the fourteenth sixteenth-note d♯; measure 16, the fourth quarter-note, d; measure 21, second quarter-note, ♯; measure 23, first quarter-note, . *In the Spohr MS.*, measure 16, last quarter-note, d; measure 22, last quarter-note not embellished measure 12, second quarter-note, lower voice, . *The Bitter MS.* reads; measure 12, as above; measure 2, the first quarter-note, measure 6, the last quarter-note and measure 10, the second quarter-note ♯; measure 13, the second quarter-

note, ; measure 15, the third quarter-note lacks the ♯; measure 17, second quarter-note, upper voice reads c♯; measure 18, fourth quarter-note, lower voice, d; measures 21 and 22, the fourth quarter-note lacks the ♯; measure 23, first and second quarter-note ♯ and final chord besides repetition marks.

N.B., the ♯, measure 2, should properly be a ♯ on b in the lower voice, not on d in the upper voice (see answer to the theme); it is doubtful whether the last quarter-note, upper voice, measure 20, should not be read thus . In measure 16, of the figure, borrowed from the theme, the two final notes are inverted. Original Inversion

Expression:— The motif of this Invention should be understood as a sympathetic question, the last note accented rather than the first. This question being constantly repeated in imitation, requires a separate practice of each voice.

Inventio VIII.

Harmonic Scheme.

Bern. Boekelman.

♩ = 138.

Remarks.

Variants:— *In the Friedemann Bach MS.*, this Invention is No IV. *In the Bitter MS.*, the \odot occurs on the final chord; *In the other two MSS.*, \odot is above the final measure-bar. Comparison of measure 4 with measure 15 affords the following interesting result,

measure 4 measure 15

measures 19 and 20 contain the same figure, but the voices are inverted. The succeeding five measures are variants of the first variant, and also contain an inversion of the principal theme. The third section, measure 26, resembles the

first, but the first three measures are omitted.
Technic:— Use a short staccato with pearling touch of the passages. Curve the fingers as much as possible. Imagine yourself before the keyboard of a clavichord where the keys are but half as long as those of our modern pianofortes. The passages in measures 15, and 19 to 25, should be played as if shaken out of the sleeve. Notes indicated thus \odot may be omitted. The parts written in canon form should be responded to rather distinctly so as to render them recognizable.
Expression:— The rotary motion of the principal theme suggests a rondo, perhaps a dance around a May-pole. The Invention permits a lively tempo, with swing and hilarity.

Inventio VIII.

♩ = 138.

The musical score is written for two staves, piano (right) and bass (left). It consists of several systems of music, each with a treble and bass clef staff. The tempo is marked as ♩ = 138. The key signature has one flat (B-flat). The score includes various musical notations such as notes, rests, slurs, and dynamic markings. Fingerings are indicated by numbers 1-5. Some notes are marked with red dots. The score is divided into measures, with measure numbers 9, 14, 19, 24, 29, and 34 indicated at the end of their respective systems. The piece concludes with the instruction "poco ritenuto".

Inventio IX.

$\text{♩} = 76.$

The musical score for *Inventio IX* is presented in two staves, piano (upper) and bass (lower), in a 3/4 time signature. The tempo is marked as $\text{♩} = 76$. The piece begins with a dynamic of *mf dolce*. The score is divided into measures, with measure numbers 4, 9, 14, 19, 24, 29, and 34 indicated at the end of each system. The notation includes various rhythmic values, accidentals, and articulation marks. Performance instructions such as *f.*, *Red.*, *mf*, *p*, *dim.*, *cresc.*, and *ritard.* are interspersed throughout. Fingerings are indicated by numbers 1-5 above or below notes. Phrasing slurs and breath marks are used to guide the performer. The score concludes with a *ritard.* and a fermata over the final notes.


Inventio IX.

Harmonic Scheme.



Bern. Boekelman.

♩ = 76.

Remarks.

Variants:— *In the Friedemann Bach MS.*, this Invention is N^o XI; legato slurs have been given so arbitrarily that it seems useless to consider them in our present edition; measure 8, last quarter-note is divided by slurs into groups of two sixteenth-notes each; measures 15 and 33 not embellished. *The Spohr MS.* gives measure 8 as above, in measure 15,  may perhaps be the proper reading. *In the Bitter MS.* measure 8, the third quarter-note has no separating slur; measures 15 and 16 not embellished; measure 33,

Expression:— The tender feeling expressed in both themes requires a very legato (cantabile) singing tone. A difference of touch should be perceptible between the subjects, perhaps like sympathetic temperaments, masculine and feminine. The study of the harmonic scheme serves as an excellent foundation for the interpretation. The reiterated intervals of the theme rising melodically by repetition demand a gradual climax. How views of tempo differ may be deduced from the various editions of this Invention. The metronome mark varies from ♩ = 76 to ♩ = 116.

 ; final measure in four parts, 

Inventio X.

Harmonic Scheme.

Bern. Boekelman.

$\text{♩} = 116$

p 4

cresc. *f* 8 12

mf *p* *cresc.* 17 22

f *cresc.* 27 32

Remarks.

Variants:— *In the Friedemann Bach MS.*, this Invention is N^o V; measure 8, lower voice; and measures 9, 10 and 11, neither voice is embellished; measures 18 and 19, lower voice not embellished; measure 20, ♯; measure 22, ♯; measure 24, lower voice, ♯; measure 26, upper voice and measure 31 lower voice, not embellished. *The Spohr MS.* reads, — measure 7, upper voice, first eighth-note ♯; measures 11 and 12, first eighth-note, upper voice ♯; measures 20 to 24 an extended trill; measures 24-25 lower voice, ditto. *The Bitter MS.* gives measures 2, 16 and 29, first eighth-note, upper voice ♯; measures 20 to 24, upper voice, extended trill; no other embellishments in the Invention.

Technic:— The following suggestion may assist in the acquisition of a soft staccato touch. Curve the inner palm of

the hand enough to retain but not crush any fragile round object, and retain the position. Then obtain the stroke by the action of the hand and fore-arm working by the wrist joint in what, in mechanics, is known as a link motion, such as the connecting rod of an engine makes. The wrist executes a wave-like motion like that of a toy boat bobbing up and down on the water. Let the upper arm hang easily from the shoulder. The hand and fore-arm alone move. (See preface of my Opus 15, Wrist Studies, F. Luckhardt, Leipzig.) Execute the trills and embellishments by finger action without losing the soft condition of the palm.

Expression:— Comparison of the phrases marked a, b, c is recommended. The character of this Invention resembles that of a Gigue. The tempo may be rather lively.

Inventio X.

♩. = 116.

piano, sempre staccato

G. C. G. b 4

a p p

b c D. p c 8

p mf c * c * c * 12

c¹ 434 f mf 5 C. 17

a a 1323 etc. cresc. etc. 22

c c 232 434 535 27

c¹ b² c¹ b¹ cresc. b¹ ff 32

sempre f

2 1 2 3 3 4 5

Inventio XI.

♩ = 69.

System 1: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly red, bass clef notes are mostly green. Fingerings are indicated by numbers 1-5. Dynamic marking: *p*. Chord labels: *g.*, *(d. F.)*, *g.*, *(F. d.)*.

System 2: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly green, bass clef notes are mostly red. Dynamic marking: *cresc.*. Chord labels: *g.*, *(d. F.)*, *g.*, *B^b(B.)*, *F.*, *d.*.

System 3: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly green, bass clef notes are mostly red. Dynamic markings: *mf*, *p*. Chord labels: *(G.)*, *C.*, *F.*, *d.*.

System 4: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly green, bass clef notes are mostly red. Dynamic markings: *f*, *p*. Chord labels: *F.*, *c.*.

System 5: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly red, bass clef notes are mostly green. Dynamic markings: *p*, *cresc.*, *f*. Chord labels: *B^b(B.)*, *c.*, *E?*.

System 6: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly red, bass clef notes are mostly green. Dynamic markings: *cresc.*, *p*, *dim.*. Chord labels: *B^b(B.)*, *g.*, *(d. F.)*, *g.*.

System 7: Treble clef (right hand) and bass clef (left hand). Treble clef notes are mostly red, bass clef notes are mostly green. Dynamic markings: *cresc.*, *f*, *poco rallent.*. Chord labels: *g.*, *F.*, *g.*.

Inventio XI.

Harmonic Scheme.

Bern. Boekelman.

$\text{♩} = 69.$

The musical score is divided into four systems. The first system contains measures 1-5, the second 6-11, the third 12-17, and the fourth 18-23. Dynamics include piano (*p*), forte (*f*), crescendo (*cresc.*), and poco rallentando (*poco rall.*). The piece concludes with a final chord in measure 23.

Remarks.

Variants:- *In the Friedemann Bach MS.*, this Invention is N^o X;

except the w on the sixth eighth-note, upper voice, in measure 17, there are no embellishments in this MS. *The Spohr MS.* reads; - measure 7, first quarter-note, upper voice w ; measure 8, last eighth-note, upper voice, w ; measure 9, fourth eighth-note, upper voice, w ; measure 10, third quarter-note, upper voice, w ; measure 16, fourth eighth-note, upper voice w ; measure 17, sixth eighth-note, upper voice, w ; measure 23, fourth eighth-note, upper voice, w ; lower voice, third eighth-note w . There are no embellishments *in the Bitter MS.*

The final chord is four voiced.



Expression:- Those inventions which are based upon a pronounced theme instead of a short motif are more difficult than the others. In this Invention, the counter-subject in the lower voice, suggests a penitential frame of mind. In measure 4, where the same theme occurs inverted in chromatic form, this chromatic inversion is dictated by the feeling thereby expressed; and the penitence requires an increased vocal character. Involuntarily one is reminded of Wagner's Tannhäuser.

Inventio XII.

Harmonic Scheme.


Bern. Boekelman.

♩. = 72.


f *f* *mf* *mf* *p* *f* *p* *mf* *p*


1 2 3 4 5 6 7 8 9 10 11 12 13


Remarks.

Variants:— *In the Friedemann Bach MS.*, this Invention is N^o IX; The theme is embellished as follows, .

In measure 3, lower voice, and in measure 5, upper voice, the fourth eighth-note has no ♯; measure 19 shows slurs in all three copies; measure 21, seventh eighth-note, upper voice

. *In the Spohr MS.* the theme is embellished as above; in measure 3, lower voice, and measure 5, upper voice the fourth eighth-note has no ♯; measure 6, upper voice and measure 11, lower voice, no ♯; measure 18, like measure 3; measure 21, upper voice, no embellishment; *The Bitter MS.* is headed, à 2 Clav. measures 3, 9, 11, and 20 have a ♯ on the seventh eighth-note; measure 2, seventh eighth-note, lower

voice, ♯; measure 18, seventh eighth-note, lower voice, no embellishment; the theme is embellished thus, .

Technic:— The custom of changing the fingers in executing mordents and inverted mordents becomes more and more general. The proper execution is obtained by preparing the last two fingers to be used, in advance above their respective keys, so that the stroke is absolutely perpendicular. To be effective these embellishments should be so rapid that the notes are nearly simultaneous. The theme may also be embellished as follows:—  i. e., let the third inverted mordent begin with the upper second, which seems preferable to a long trill.

Inventio XII.

♩. = 72.

The musical score for *Inventio XII* (BWV 999) by Johann Sebastian Bach is presented in a two-staff system (treble and bass clef). The piece is in G major and 12/8 time, with a tempo marking of ♩. = 72. The score consists of 13 measures, divided into systems. The notation includes various dynamics such as *f*, *mf*, and *p*, along with articulation marks like slurs and accents. Fingerings are indicated by numbers 1-5. Red and green markings highlight specific passages throughout the piece. Measure numbers 1, 2, 3, 4, 6, 7 1/2, 9, 11, and 13 are indicated at the end of their respective systems.

mf f mf

A. Red. e. D. 15

p sopra p

A. Red. 17

f cresc. 19

ff poco rallentando Red.* 21

Inventio XIII.

♩ = 108. p mf

a. Red. p C. (d.) 3

p p

a 7

p p

a G. 10

Musical score for measures 15-17. The piece is in D major (two sharps). The tempo is marked *mf* (mezzo-forte). Measure 15 starts with a *mf* dynamic. Measure 16 features a *p* (piano) dynamic. Measure 17 continues with a *p* dynamic. The music consists of a steady eighth-note accompaniment in the bass and a melody in the treble.

Musical score for measures 19-21. The piece is in D major. The tempo is marked *f* (forte). Measure 19 starts with a *f* dynamic. Measure 20 features a *cresc.* (crescendo) dynamic. Measure 21 features a *f* dynamic and a *poco rall.* (poco rallentando) marking. The music consists of a steady eighth-note accompaniment in the bass and a melody in the treble.

Expression:— Nearly all editions give the character of (rolling, not pearling), is the true support of the rhythmic this Invention alike, "con fuoco." The figuration, con bravoura, element of the theme. Close, in almost military style.

II. Piano ossia Harmonium.

Inventio XIII.

Harmonic Scheme.



Bern. Boekelman.

Musical score for measures 1-3. The piece is in C major. The tempo is marked *mf* (mezzo-forte). The time signature is common time (C). The tempo marking is $\text{♩} = 108$. Measure 1 starts with a *mf* dynamic. Measure 2 features a *mf* dynamic. Measure 3 features a *mf* dynamic. The music consists of a steady eighth-note accompaniment in the bass and a melody in the treble.

Musical score for measures 4-10. The piece is in C major. The tempo is marked *p* (piano). Measure 4 starts with a *p* dynamic. Measure 5 features a *p* dynamic. Measure 6 features a *p* dynamic. Measure 7 features a *p* dynamic. Measure 8 features a *p* dynamic. Measure 9 features a *p* dynamic. Measure 10 features a *p* dynamic. The music consists of a steady eighth-note accompaniment in the bass and a melody in the treble.

II. Piano ossia Harmonium.

Remarks.

Variants:— *In the Friedemann Bach MS.*, this Invention is No VI; in all three copies, measure 15, third sixteenth-note, upper voice, reads *a* not *a^b*. *The Bitter MS.* in measure 2, the second half note has  instead of 

Technic:— A pretty study for chords in broken forms. Do not prepare the fingers one at a time for the attack of the keys, but extend them over their proper keys as far as possible in advance. Though this is difficult at first the steadiness of hand and the security of stroke obtained thereby

are surprising. The figures in eighth-notes should be played almost always staccato. The theme of Handel's Andante from the Suite in G Minor, is almost identical with that of this Invention. On the eighth eighth-note Handel leads to the octave, where Bach on the eighth sixteenth-note leads to the seventh. Otherwise, in motif and introductory notes the themes are exactly alike.

Expression:— The tempo is lively, Beware, however, of precipitation. The march-like rhythm should be maintained. Among the fifteen numbers, this one is more practical than poetical.

II. Piano ossia Harmonium.

Inventio XIV.

Harmonic Scheme.

Bern. Boekelman.

System 1: Treble and bass clefs. Treble clef contains a complex melodic line with triplets and slurs. Bass clef contains a rhythmic accompaniment with slurs and fingering. Dynamics include *mf*. Measure numbers 13 and 14 are visible.

System 2: Treble and bass clefs. Treble clef continues the melodic line. Bass clef features a more active accompaniment. Dynamics include *fp* and *cresc.*. Measure numbers 15 and 16 are visible.

System 3: Treble and bass clefs. Treble clef has a melodic line with some red highlights. Bass clef has a steady accompaniment. Dynamics include *p* and *f*. Measure numbers 17 and 18 are visible.

System 4: Treble and bass clefs. Treble clef continues with a melodic line. Bass clef accompaniment. Dynamics include *p*. Measure numbers 19 and 20 are visible.

System 5: Treble and bass clefs. Treble clef has a melodic line with some red highlights. Bass clef accompaniment. Dynamics include *f* and *rallentando*. Measure numbers 21 and 22 are visible.

Inventio XIV.

$\text{♩} = 80.$

System 6: Treble and bass clefs. Treble clef contains a melodic line with red highlights. Bass clef contains a simple accompaniment. Dynamics include *fp*. Measure numbers 23 and 24 are visible.

System 7: Treble and bass clefs. Treble clef contains a melodic line with red highlights. Bass clef contains a simple accompaniment. Dynamics include *p*. Measure numbers 25 and 26 are visible.

fp.

mf *cresc.* *dim.*

p *cresc.*

f *p* *mf* *p* *mf* *p* *mf*

p *mf* *p* *mf*

cresc. *f*

Remarks.

Variants:— *In the Friedemann Bach*; The Invention is N^o 8; measure 9, upper voice, last sixteenth note reads \bar{a} ; *The Spohr MS.*, measure 9, reads \bar{a} ; *The Bitter MS.* the Twelfth sixteenth-note of measure 12, measure 19, fourteenth sixteenth note, upper voice shows \blacktriangledown .

Technic:— The upward and downward motion of the figure in thirty-second-notes is not obtainable with ordinary fingering by many hands. The fingers should be much curved. At the last sixteenth-note of the phrase (first and third quarter-notes) particular care should be taken to keep the wrist

very elastic. For practice the Invention may be divided into eight distinct parts,— 3, 2, 3, 3, 2, 2½, 2 and 2½ measures. Always study with each hand separately, both to acquire the technic and the expression, especially measures 12, 13, 16, 17, 18 because the dynamics follow the canon form.

Expression:—The expression is to be given with clearness and with particular grace. Here the *pearling* not the *bravoura* legato is required. This Invention offers an occasion for individual interpretation provided it be musical and within the meaning of the composer.



Inventio XV.

Harmonic Scheme.


Bern. Boekelman.

$\text{♩} = 92.$

Remarks.

Variants:- *In the Friedemann Bach MS.*, this Invention is No VII; as in Nos XI and XIV, the legato slurs are given arbitrarily; measure 5, the second quarter-note, upper voice, w ; measure 21, last quarter-note, upper voice w *In the Spohr MS.*, measure 3 the first eighth-note, upper voice, w ; measure 5, third eighth-note, upper voice w ; measure 21, last quarter-note, upper voice, w . *In the Bitter MS.*, measure 2, fifth eighth-note, upper voice, measure 4, fifth eighth-note, lower voice, measure 5, third eighth-note, upper voice, measure 6, fifth-eighth-note, upper voice, measure 7, first eighth-note, upper voice, without embellishments; measure 7,  instead of  measure 11, last eighth-note,

upper voice, ∞ ; measure 13, lower voice, a tie from the fourth to the fifth eighth-note; measure 14, fifth eighth-note, upper voice, no embellishment; measure 19, fifth eighth-note, lower voice, w ; measure 20, first eighth-note, upper voice, no embellishment; measure 21, last quarter-note, upper voice, w ;

measure 22, four voiced. 

Expression:- Somewhat steady in rhythm, almost as if people were promenading quietly, during a dance. In regard to the execution of the embellishments, see No XII.

Inventio XV.

$\text{♩} = 92.$ *p*

staccato
b(h).

mf
b(h).

marcato
b(h).

f
b(h).

mf
A.

f
b(h).

f
b(h).

22

THE SIGNS EXPLAINED.

Red denotes the principal subject.

Green denotes the first counterpoint.

Purple denotes the second counterpoint.

Yellow the third counterpoint.

Black indicates an episode, a transition, or free counterpoint.

▣ indicates canon-form.

◆ indicates parts of counterpoint, i. e. when the secondary subject is not continually used.

↑ indicates that the subject is not accompanied by its own counterpoint.

↗ indicates inversion of subjects.

● Notes with large heads signify augmentation.

♯ Notes with small heads signify diminution.

// and / indicate sections and subsections respectively.

⋯ a guide for Voice-reading.

* An asterisk indicates a change from the original form.

○ indicates omission.

⌈ ——— ⌋ Brackets in black or in color indicate similarity between the music enclosed and that printed in the color of the bracket.

↑ ↓ indicate whether the notes are to be played by the right or the left hand.

Capitals under the staves denote that the key indicated is major; small letters denote that it is minor.