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A METHOD FOR THE TEACHING OF BRASS INSTRUMENTS IN THE PUBLIC SCHOOLS

By

Francis Cantu

Stockton

1947

A Thesis

Submitted to the Department of Music

College of the Pacific

In partial fulfillment

of the

Requirements for the

Degree of Master of Arts

APPROVED: David T. Lawson Chairman of the Thesis Committee

DEPOSITED IN THE COLLEGE LIBRARY: Allan R. Lauren

DATED: December 6, 1947 Librarian

Acknowledgments

The ideas expressed in this method are what I consider to be the best points as taught to me by my former teachers. My sincere thanks to my brother, Robert Cantu, former student of the late Max Schlossberg, for many years first trumpet player of the New York Philharmonic Orchestra; to the late Alfred Arriola of San Francisco; to Frank Elsass, for many years cornet soloist of the famous Goldman Band of New York City; to Harold Mitchell, for fourteen years first trumpet player at the Metro-Goldwyn-Mayer studios in Hollywood; to the late Herbert L. Clarke, many years cornet soloist of the John Philip Sousa Band and my last teacher, Louis Maggio, former first trumpet player of the Minneapolis Symphony and a member of the orchestra that toured with the late Enrico Caruso.

For constructive criticism, my thanks to Mr. J.G. Elliot, Dean of the Music Conservatory of the College of the Pacific, Mr. David T. Lawson, Mr. Robert B. Gordon and Miss Martha M. Pierce.

This subject was chosen because I felt a need of a method for the teaching of brass instruments. Most teachers whose major instrument is not a member of the brass family have had too little opportunity to study and find out what is necessary for developing a good brass instrument player. In far too many cases a teacher is expected to be able to teach the brass instruments after completing a three or four months course.

This method is intended to be used as a guide, in conjunction with other material. The aim is to put in writing the proper fundamentals necessary for good brass playing. The exercises are written progressively and are to be taken up only when the student is ready for them. It is for this reason that supplementary material must be used.

The following points apply to all the brass instruments, leaving the more specific items to be taken up with the corresponding chapters.

There seems to be a general misunderstanding among many teachers that the embouchure and its use differs from one brass instrument to another. This belief is absolutely incorrect. There need be no difference whatsoever from the embouchure of a trombone player to that of a trumpet or tuba player.

The matter of proper breathing may also be simplified. Far too many players are using only half of their air capacity.

Filling only the lower lungs is not sufficient. In fact, the abdomen need not protrude at all when inhaling. The breath should be taken at a normal rate of speed, filling both the diaphragm and the upper lungs or chest. In this way more air can be taken in than as if only the diaphragm were filled. The shoulders should not lift while inhaling. After having taken the breath, if the first note to be played is low, the diaphragm should be allowed to drop. If the first note is high, the diaphragm should be tensed and pulled in, to support the note. The diaphragm should work like a pump. When playing up the scale it should come in and up, and when playing down the scale it should work in just the opposite direction.

The mouthpiece should be placed to the lips in a comfortable position. In most cases the student will find the best position without any help from the teacher. Any extreme in mouthpiece position should be avoided. The placing of the mouthpiece should be done without any pressure at all, merely the contact of the mouthpiece and the lips. In this way the student will automatically eliminate any unnecessary pressure. Once the student starts to blow the matter of pressure can be disregarded. Proper use of the air and the lips will take care of any undue pressure.

The secret of good tone quality, range, and endurance is in having a large portion of the lips inside the mouthpiece. It is for this reason that stretching the lips back while inhaling is to be discouraged. If the player will think the

vowel "O" while inhaling, all stretch will be eliminated and the desirable amount of lip will remain inside the mouthpiece. All breaths are to be taken in the same manner, regardless of the register being played. The contact of the mouthpiece and lips is not to be broken.

Entirely too many players are troubled with poor endurance. If the pressure of the mouthpiece on the lips will be eliminated at each breath, without breaking the contact of the mouthpiece and lips, the endurance will be greatly improved. In the case of the trumpet, trombone, and the french horn, the release of pressure can be accomplished by relaxing the left wrist while inhaling. This relaxation allows the blood, which has been forced away from the lips, to rush back to that area. The tuba player should relax his right wrist for the same result.

The matter of proper tonguing presents an important phase of brass playing. At no time should the tongue be allowed to come between the teeth. The tip of the tongue must always strike behind the teeth, even when playing pedal tones. The syllable used while tonguing will change according to the register being played. In the low register the syllable is ah; in the middle, ae; in the high, ee; and in the extreme high register, ih. This is called vocalization and is recommended by many of our most successful teachers. The tongue should strike higher on the teeth as the notes progress upward. In the extreme high register the tongue should strike where the gums and the teeth meet.

This will put the air column under greater pressure and facilitate playing in this register.

A word should be said about mental complexes that bother some students. If not checked they can become too deeply imbedded to be corrected. Some of the more common ones are the ideas that the mouthpiece is not going on the same place on the lips each time, or that the mouthpiece is changing position when changing registers. Many students want to change mouthpieces every few months. In most cases there is no true basis for these difficulties. However, the student can become so convinced that he is having these troubles that his playing becomes greatly impaired. The teacher must use every means possible to convince the student that his troubles are ungrounded. These problems will generally be found among the more advanced players. The important fact is that the teacher be able to differentiate between a complex and a true problem of embouchure.

A study of the vibrato is necessary only for the trumpet and the trombone. Some players of the french horn use a slight vibrato, but it is not advised. Vibrato must be used with good taste, and if in doubt it is best not to use it at all. Vibrato is not used in a fanfare passage or ensemble playing of classical music. The hand vibrato is recommended for the trumpet and slide vibrato for the trombone. Vibrato is used so seldom in classical music that it has not been considered in this method.

The student is advised to rest frequently during the practice period. Wherever a whole rest appears in the numbered exercises the instrument is to be removed from the lips. This also applies to any study of long tones.

The exercises into the extreme high and low registers are entirely possible, if the preceding material has been covered properly. The reasons for working the extreme high register are to strengthen the lips and insure more confidence when playing in the normal high register.

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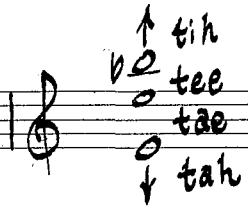
Chapter I --- The Trumpet

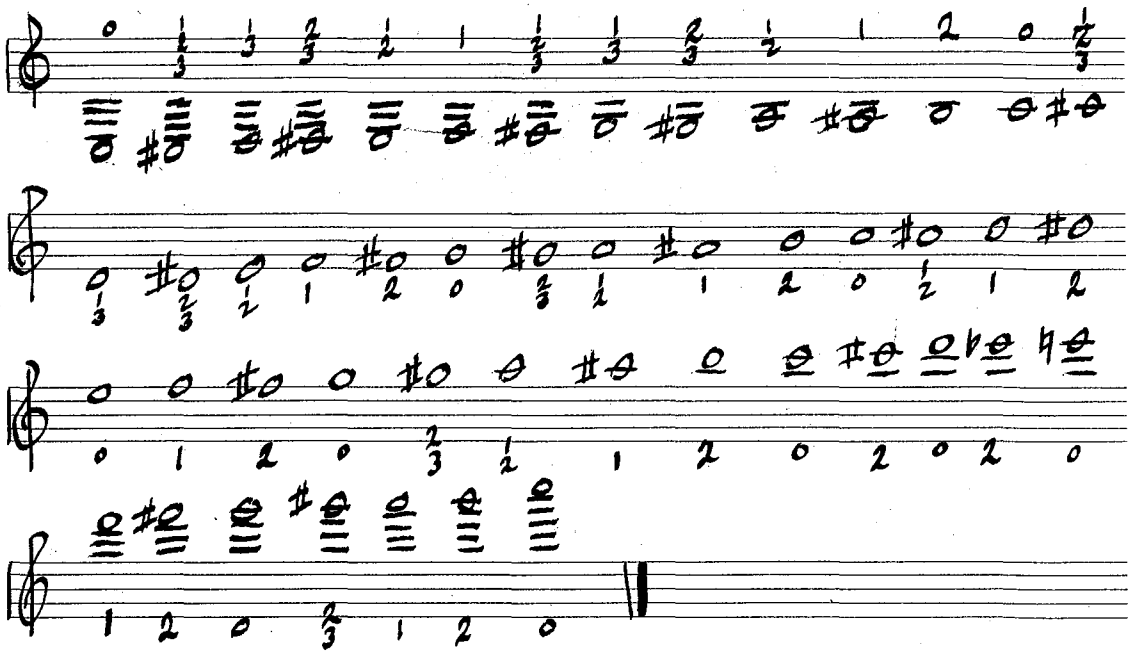
Reminders:

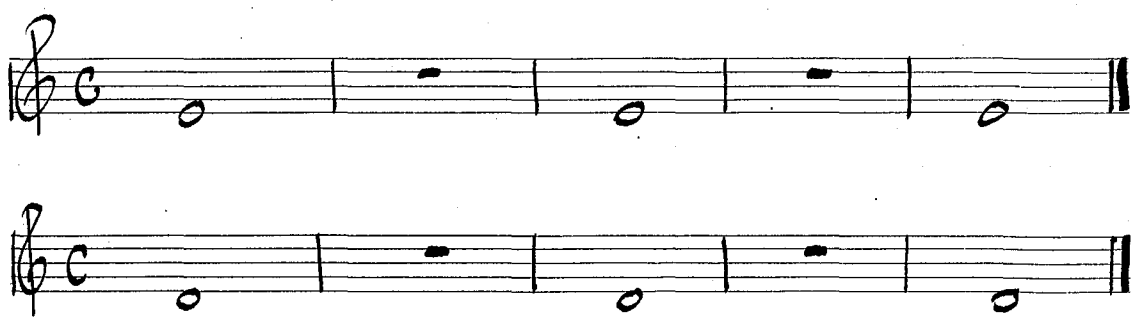
1. Place the mouthpiece lightly.
2. Say "O" at each breath.
3. Relax the left wrist at each breath.

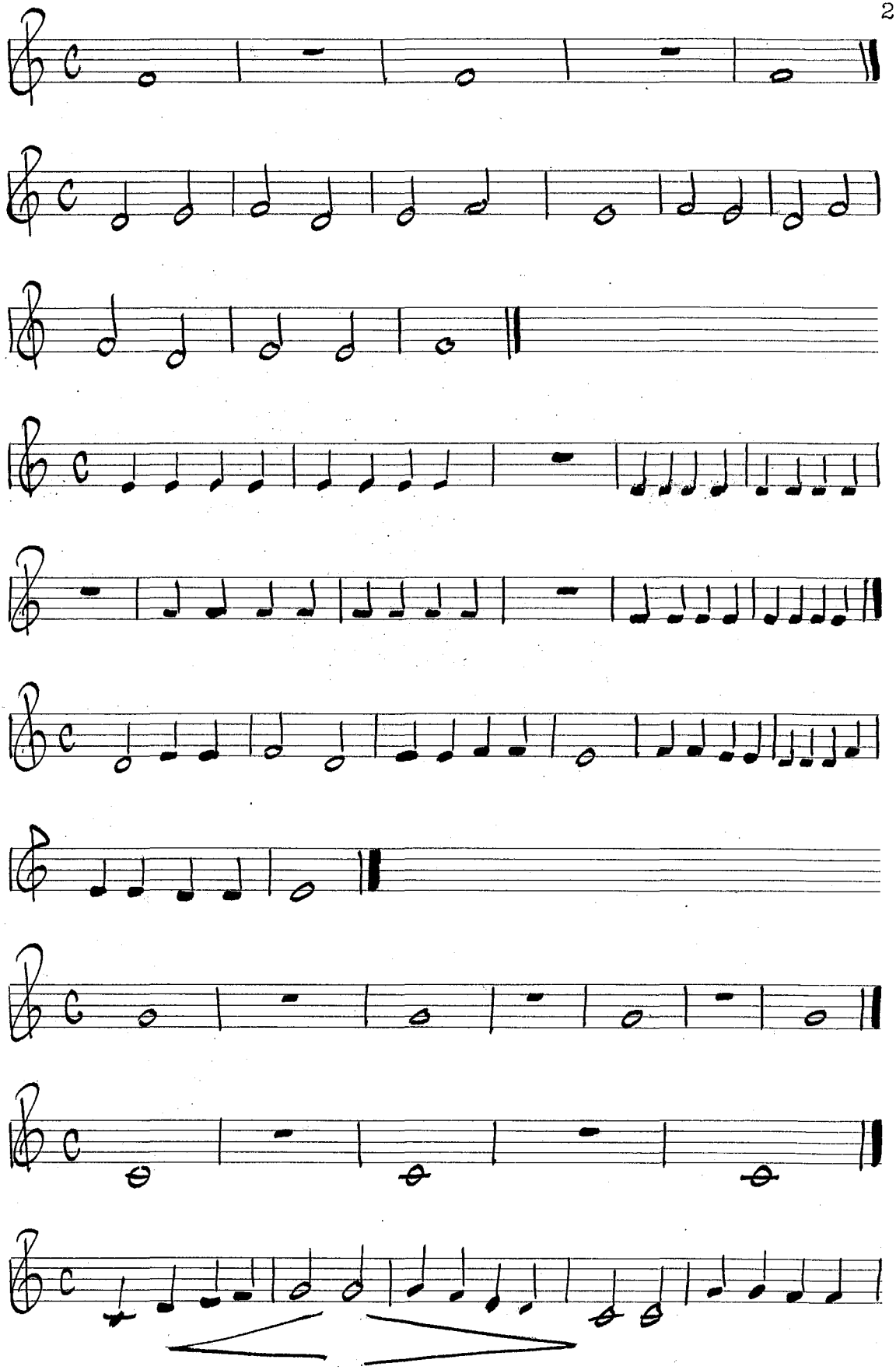
Syllables to be used:

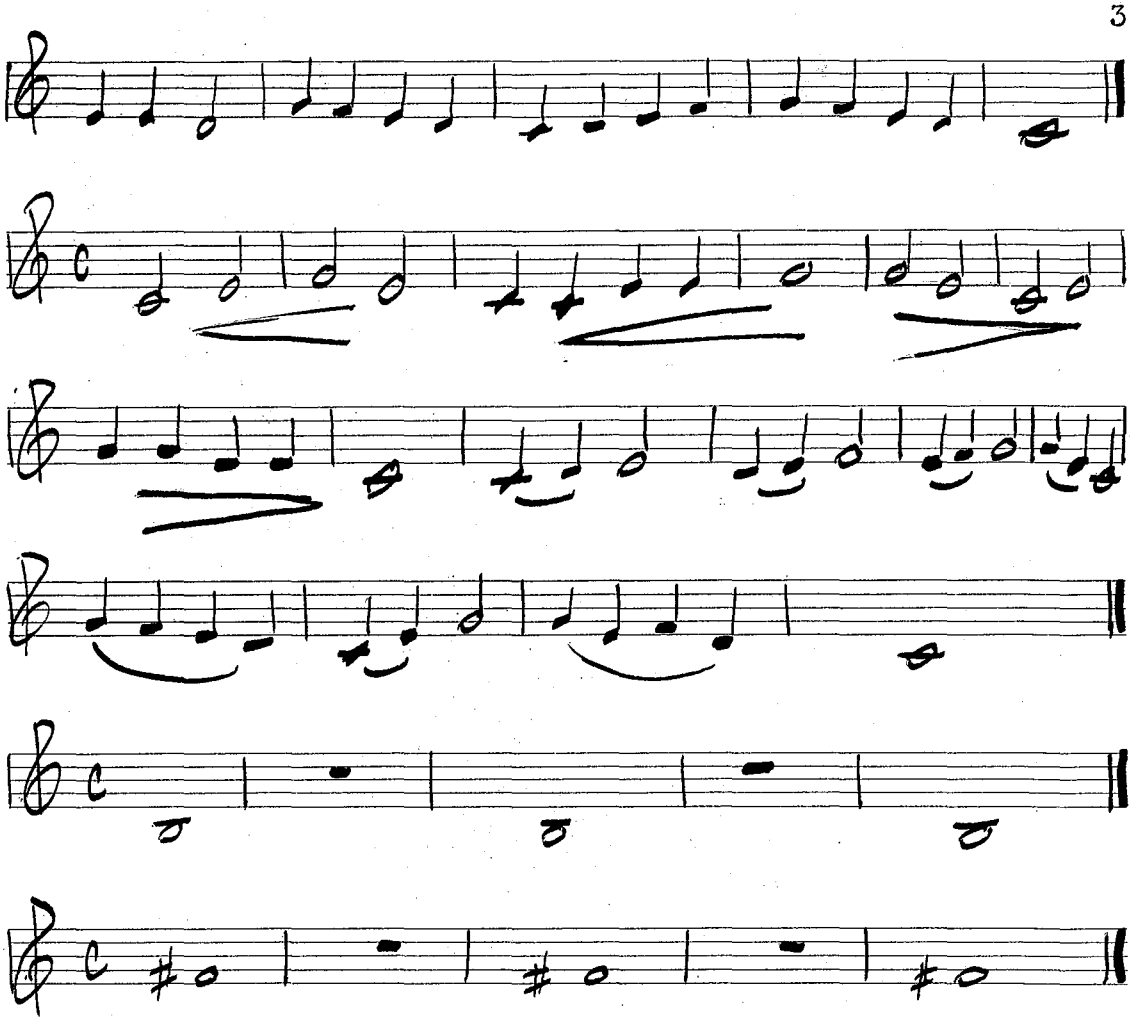


The chromatic scale with fingerings:

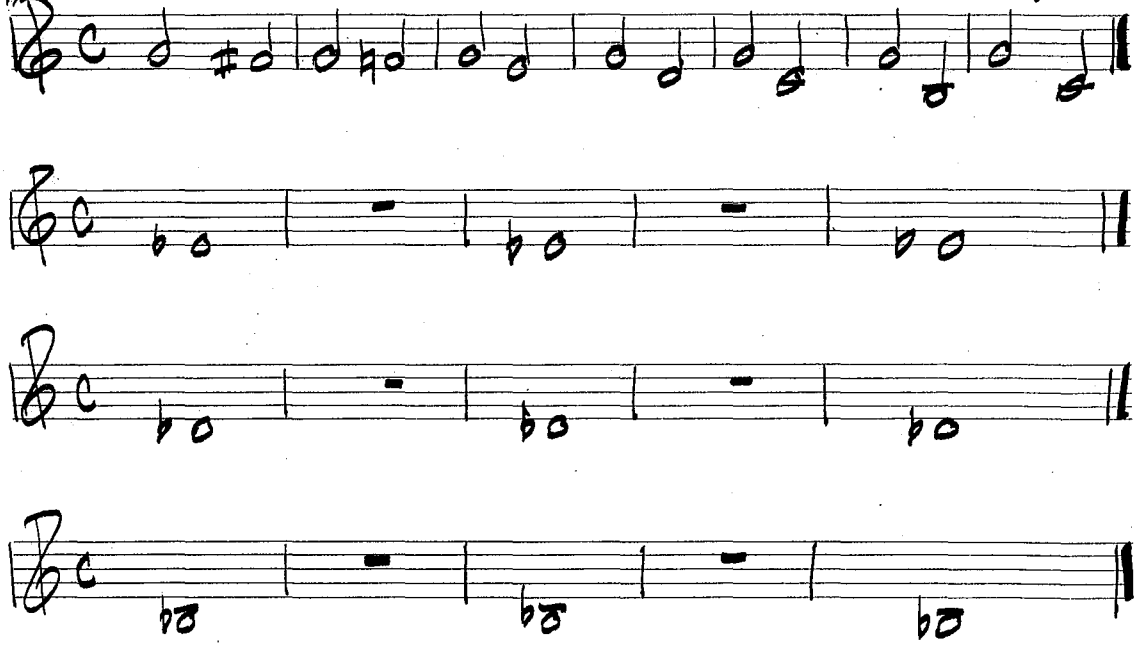


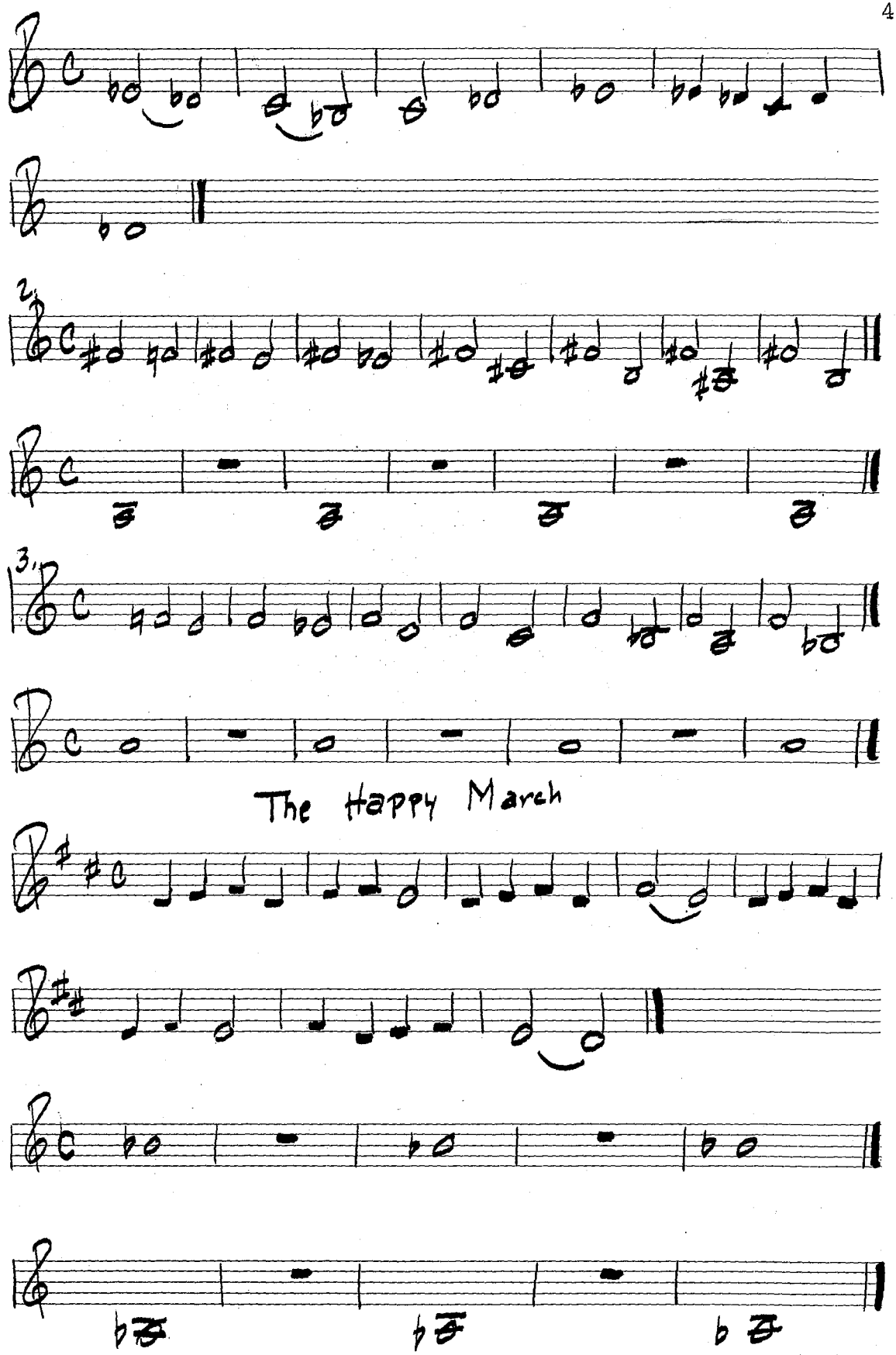




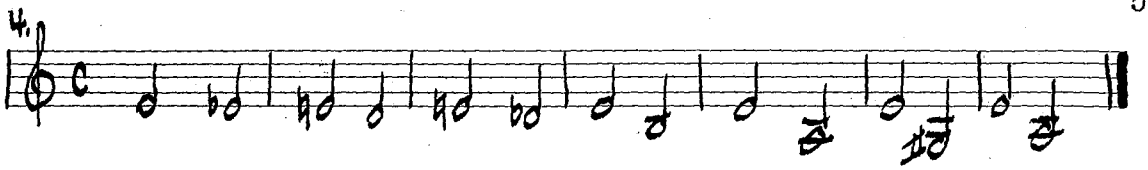


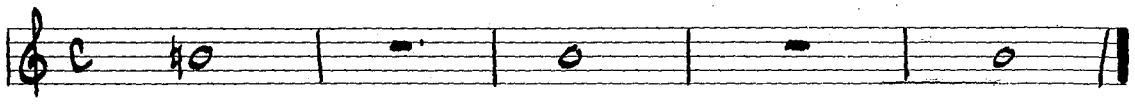
1. Excercises numbered 1, 2, 3, etc. should be used for a warm-up

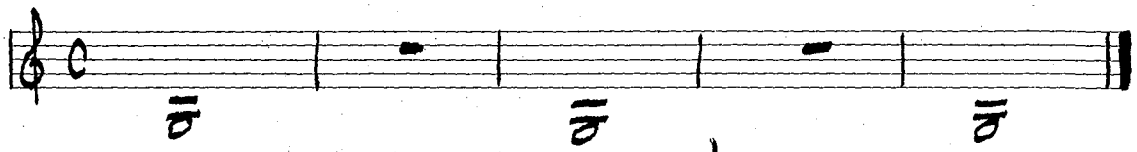



2.
3.
The Happy March

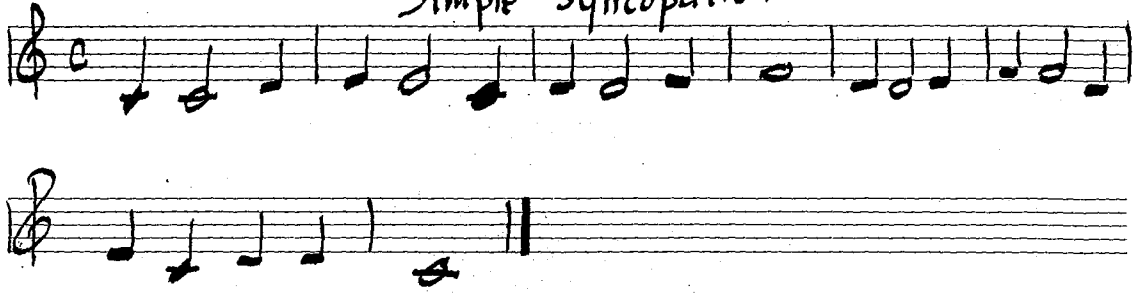
4.



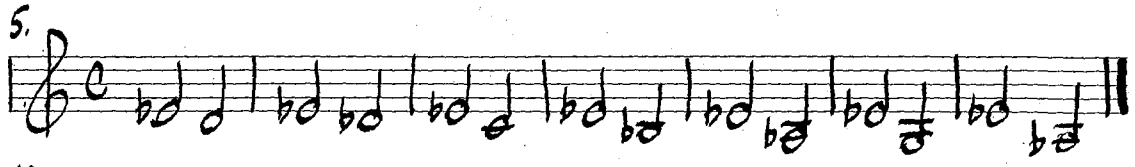




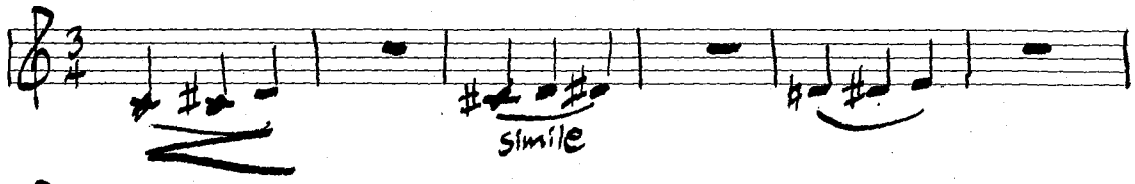
Simple Syncopation



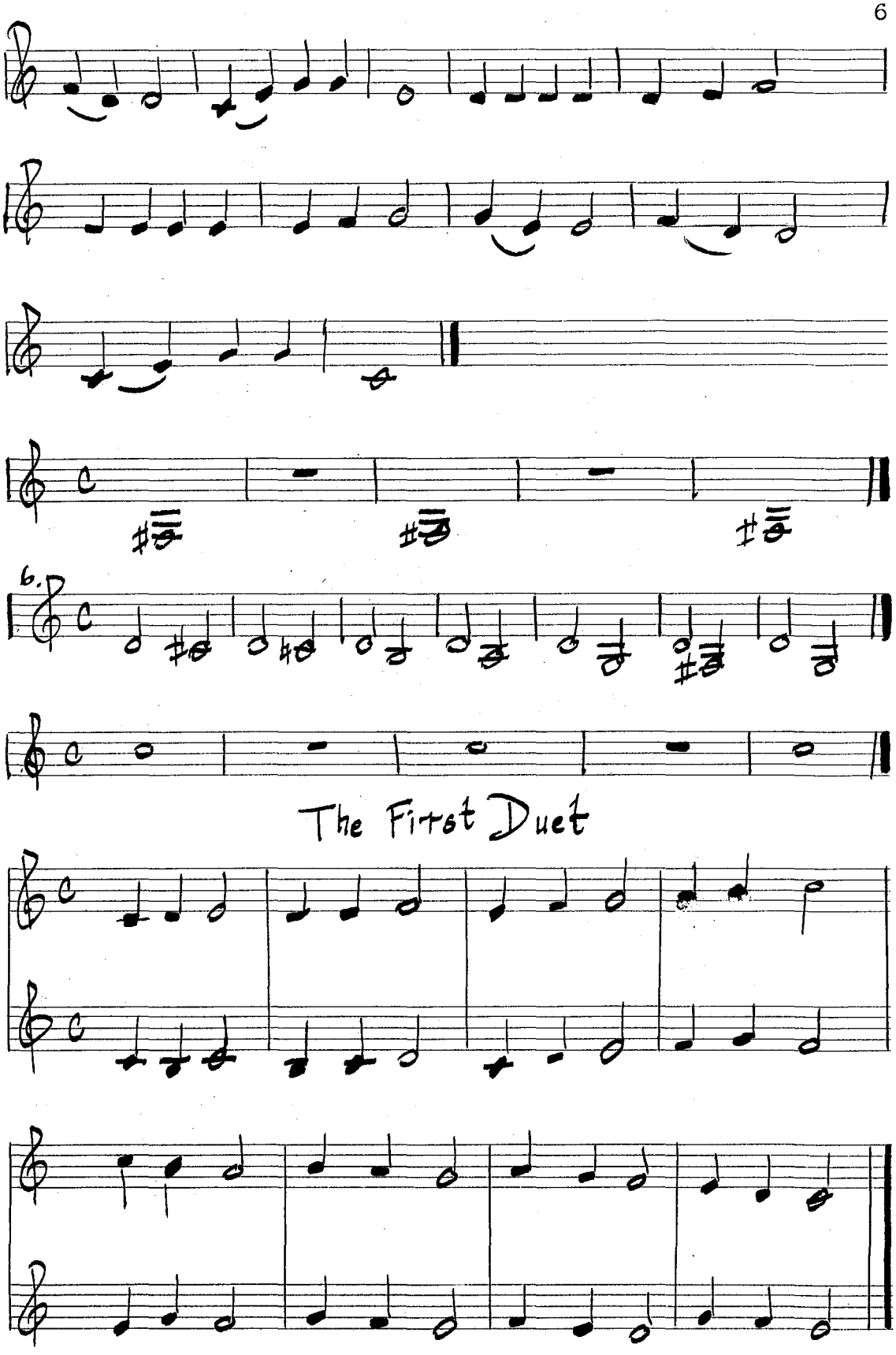
5.



1A

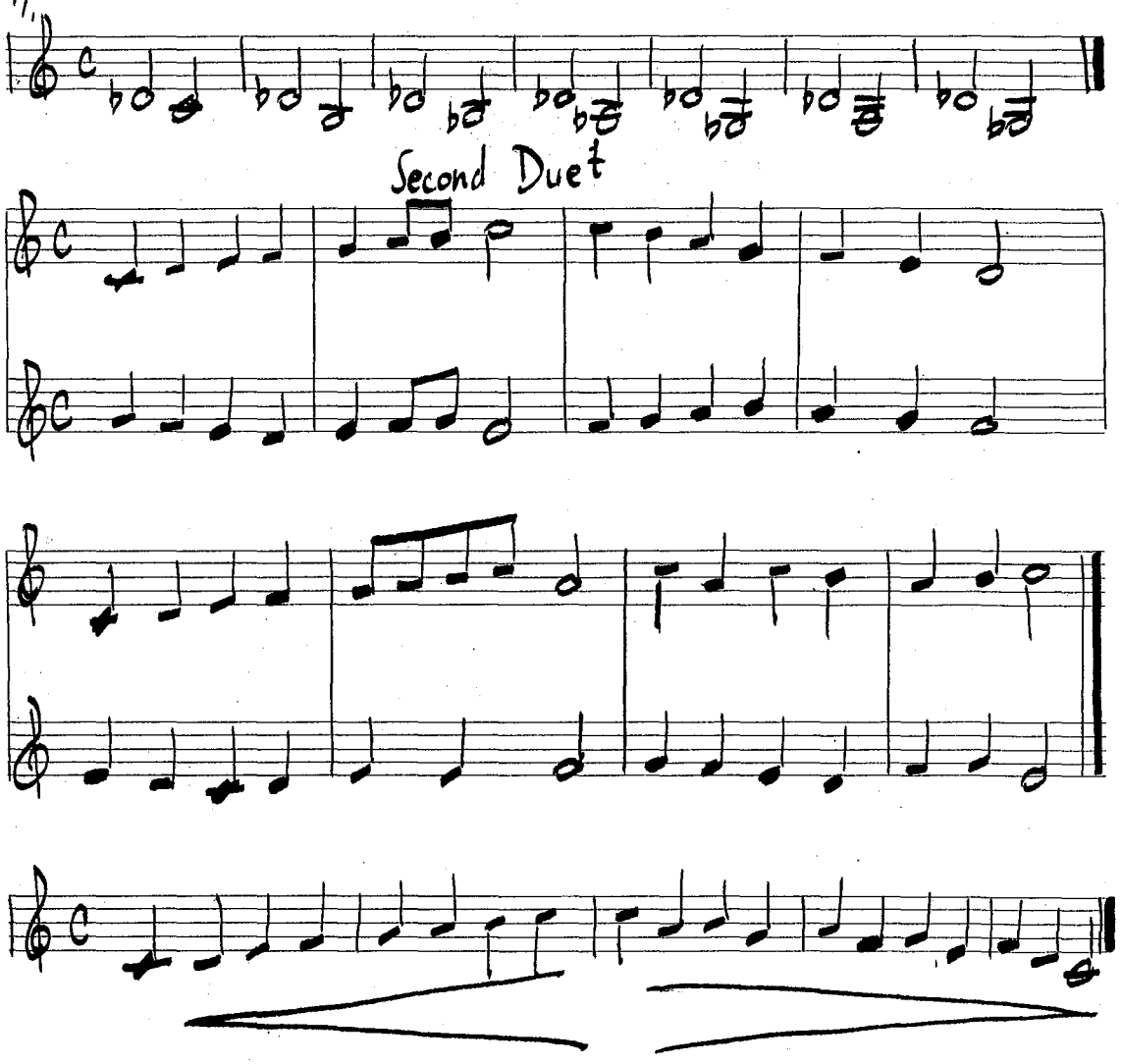


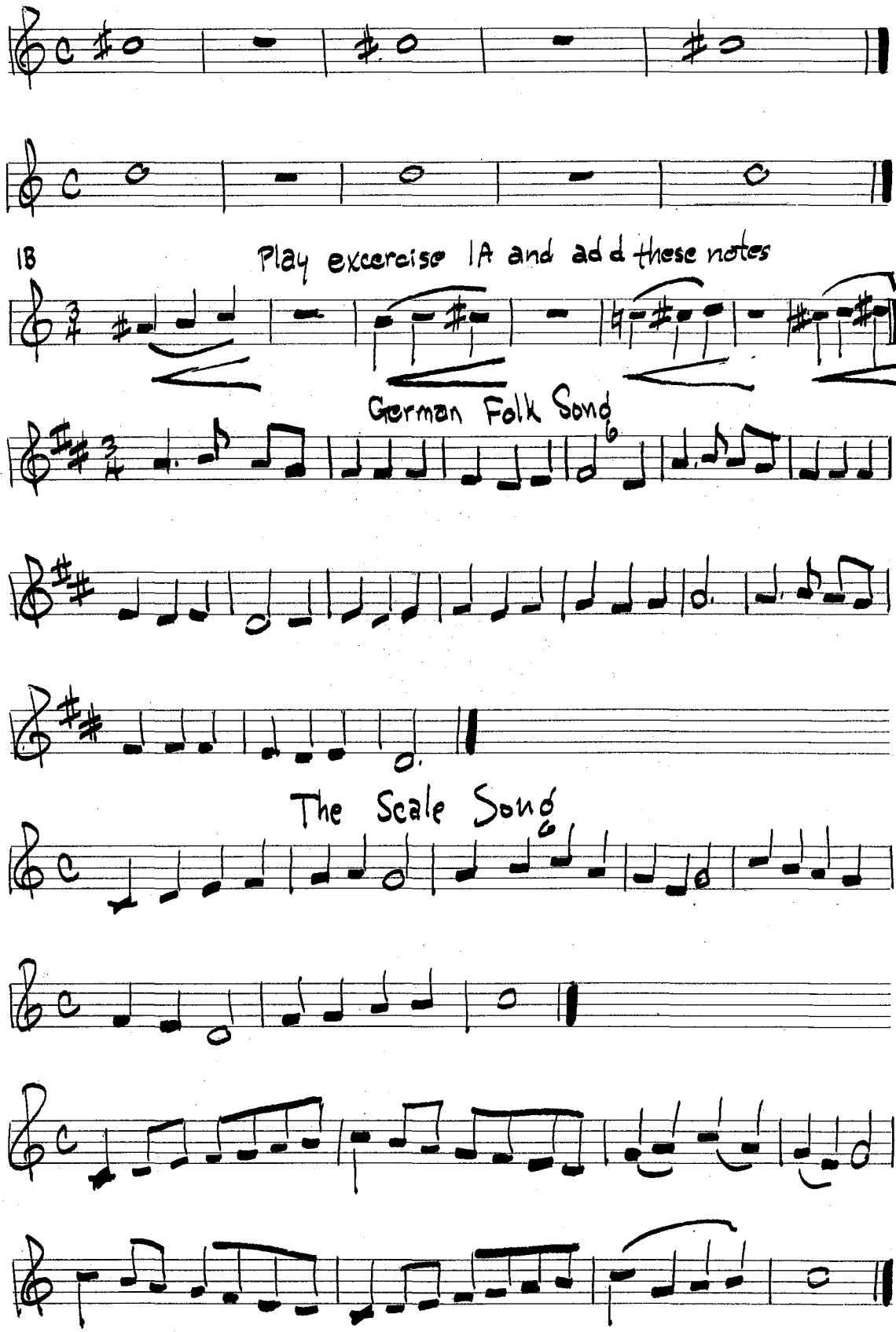
Lightly Row

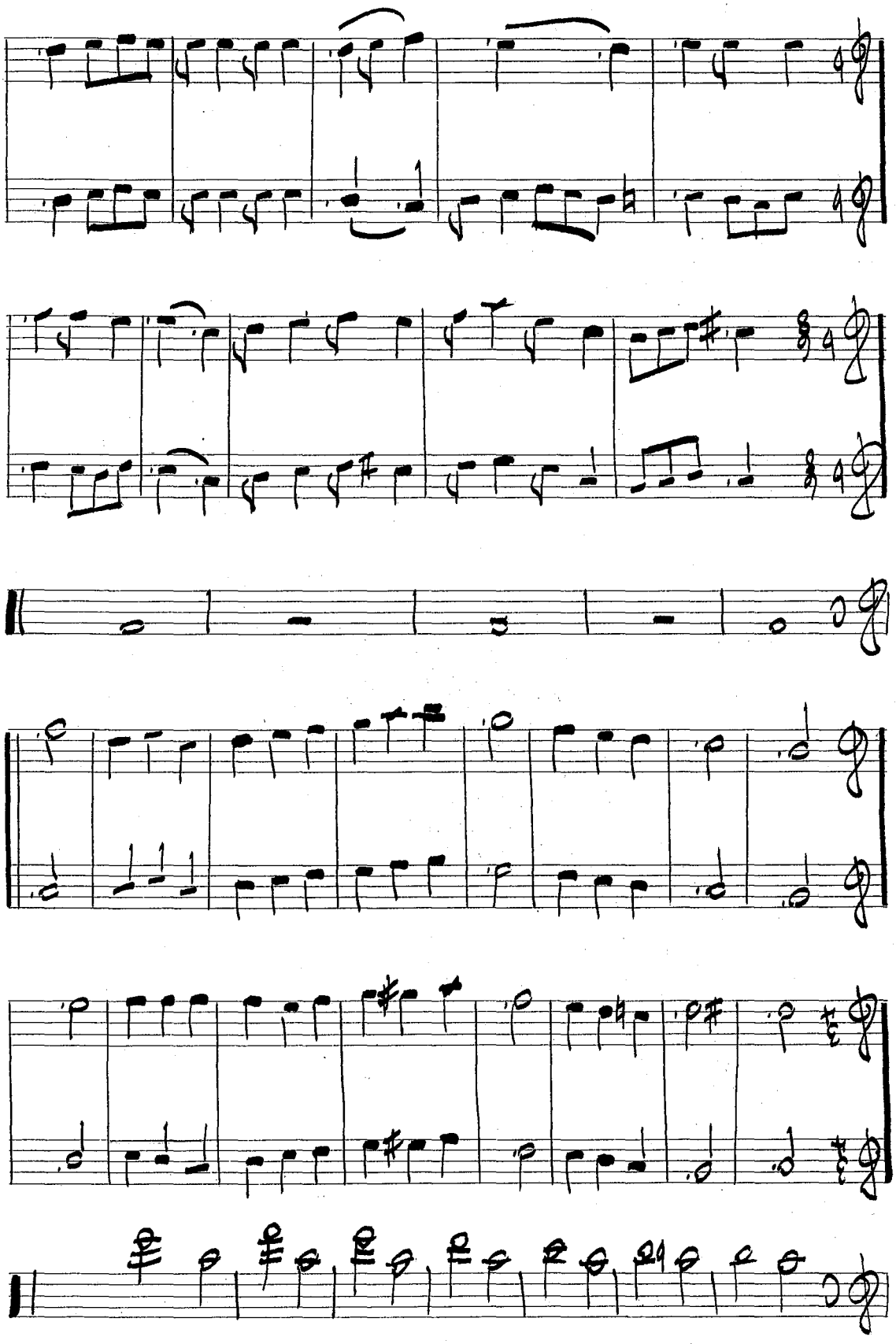

6.
The First Duet

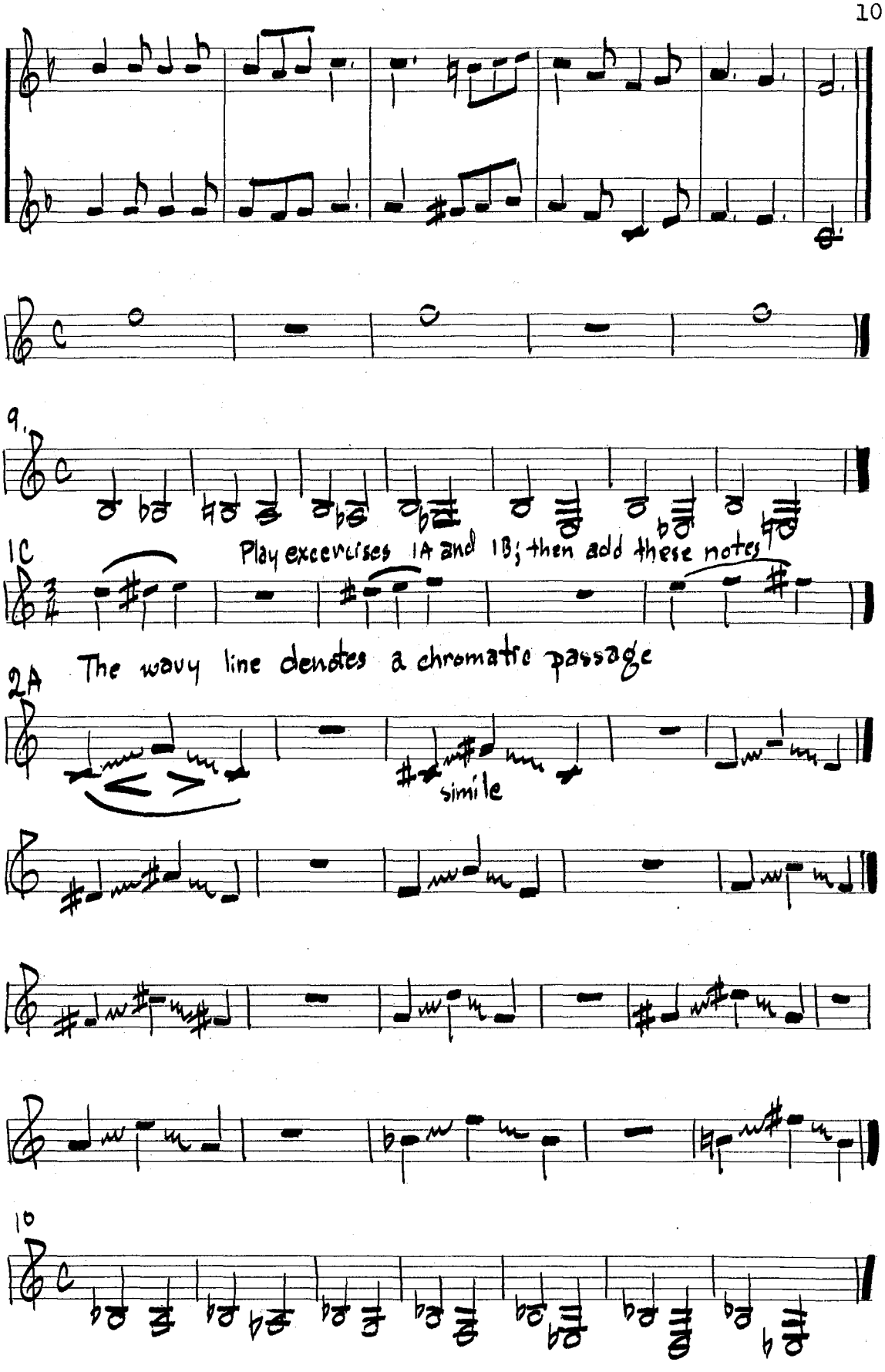
Study involving the first pedal note:

If the fingering chart is consulted, the reader will find that all pedal notes are fingered the same as the corresponding note in the lower octave of the normal register. Pedal notes are practiced for the purpose of getting the lips to vibrate more freely. It will generally be found that the lower into the pedal register the student can play the higher he will be able to play. The embouchre for these notes must be the same as while playing the normal register, and the tongue remains behind the teeth. If the pedal note does not respond, try it the following day. These notes are seldom used in playing. Other than for "trick" and solo purposes the only known pedal note to my knowledge, is in the overture to the opera, EMPEROR JONES.



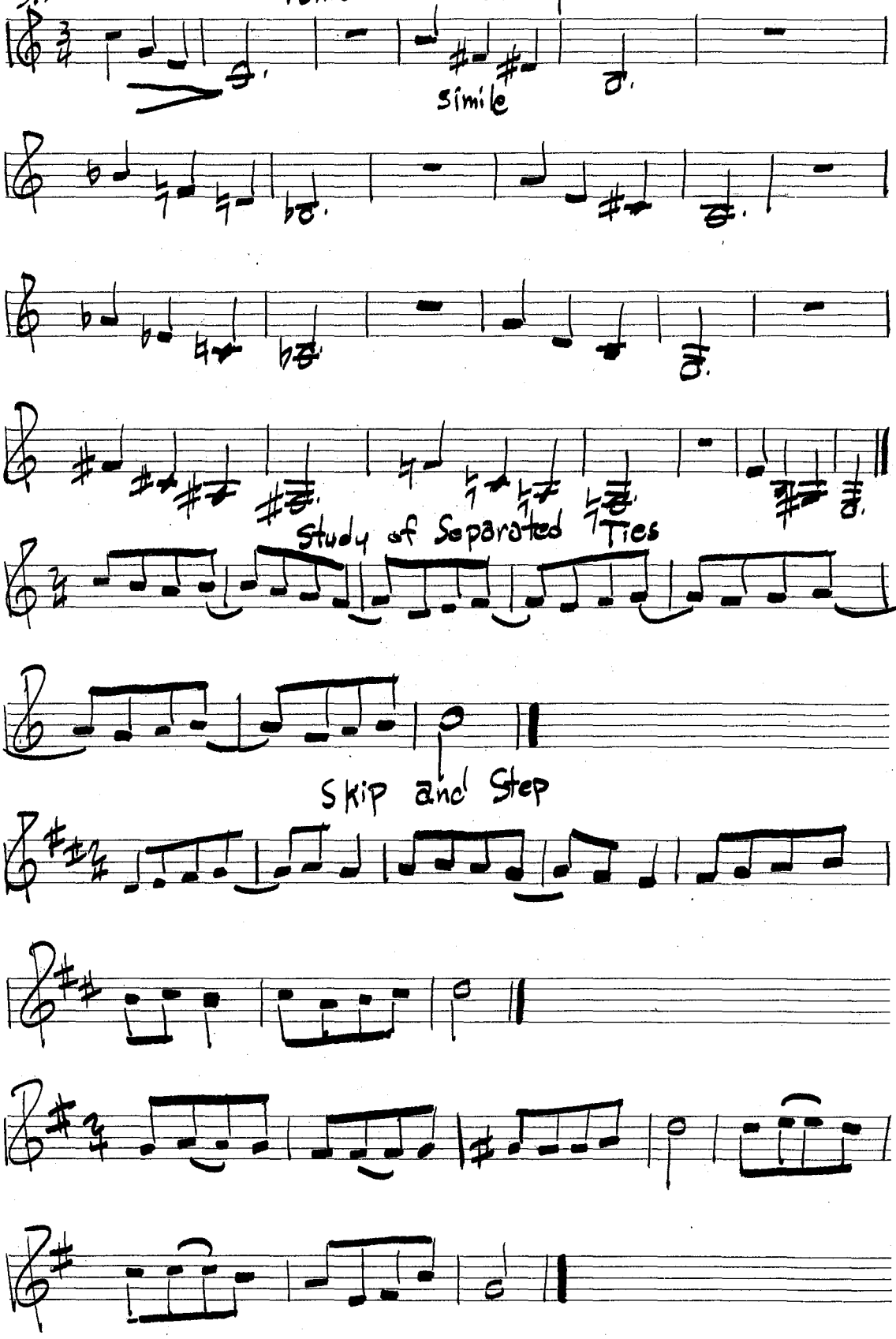

1B
Play excercise 1A and add these notes
German Folk Song
The Scale Song

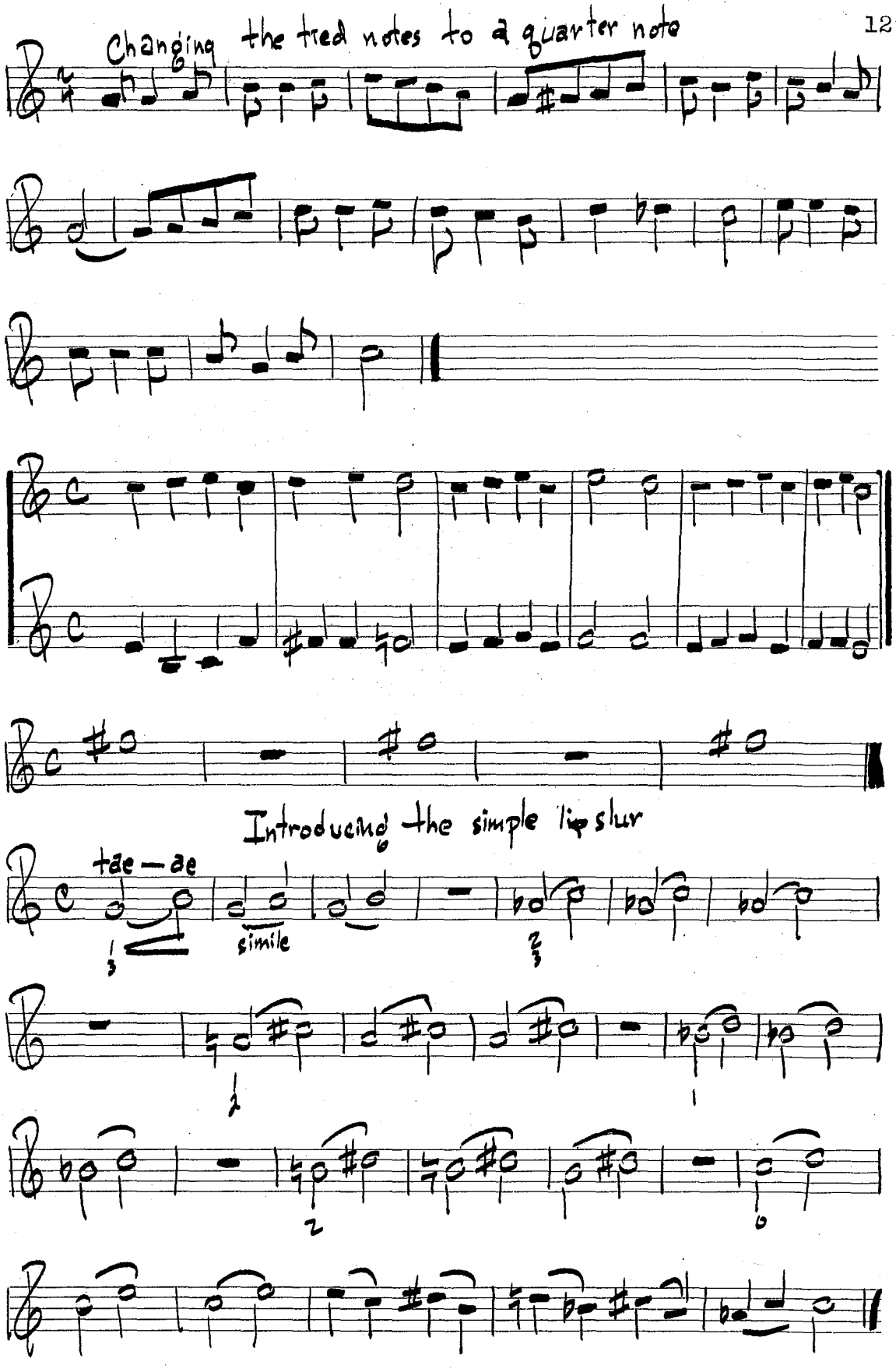


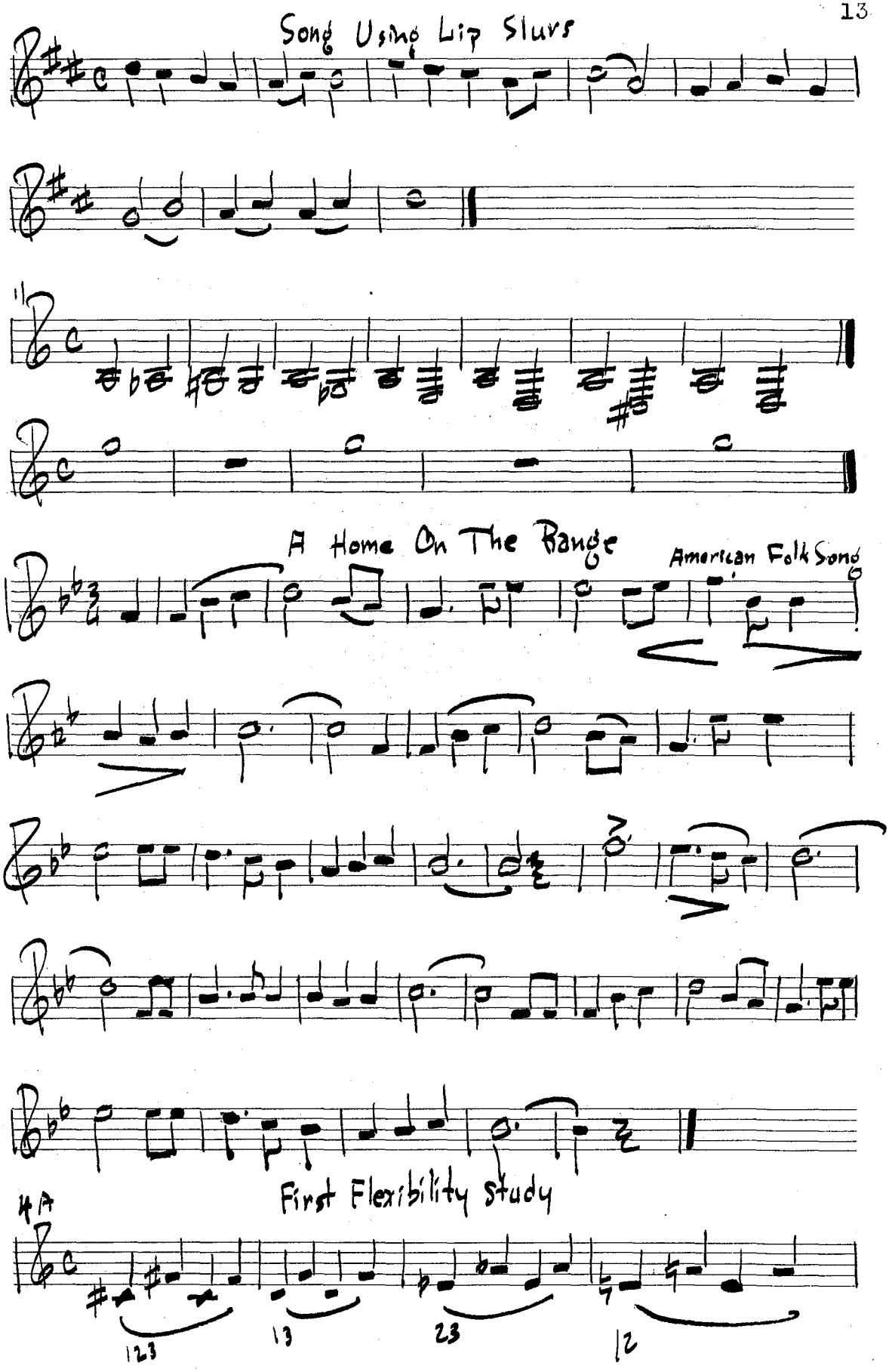

9.
1C
Play excercises 1A and 1B; then add these notes
2A
The wavy line denotes a chromatic passage
simile
10

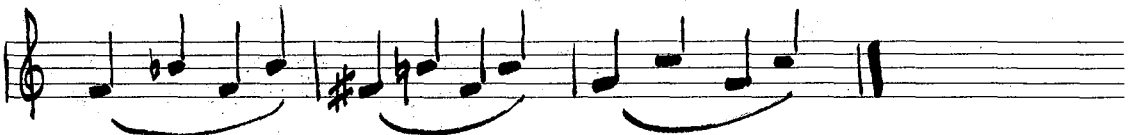
3A

Tonic Chord Study

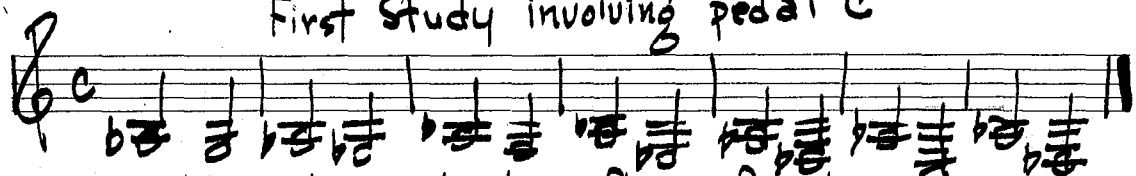



Changing the tied notes to a quarter note
tae – ae
simile
Introducing the simple lip slur

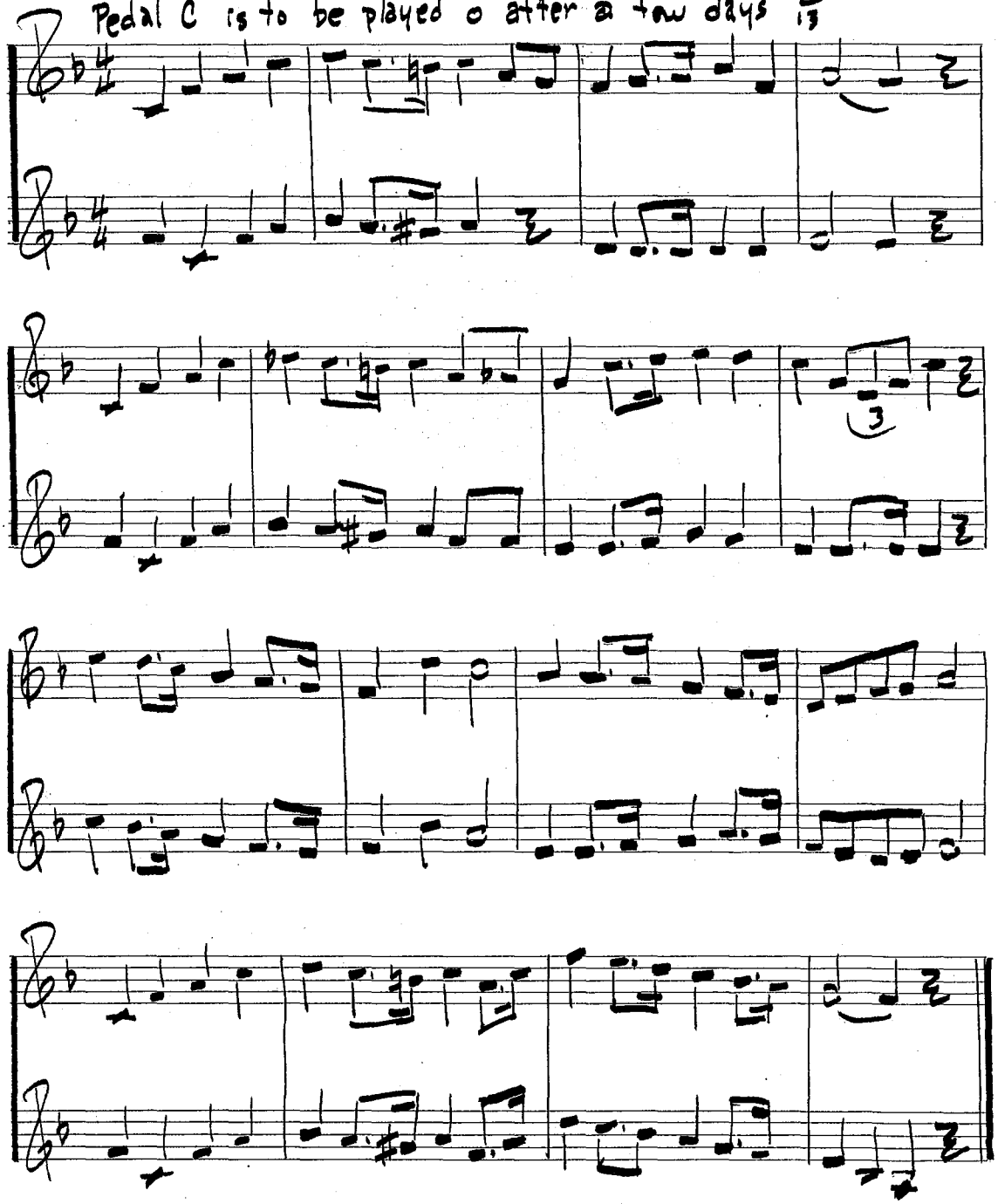

Song Using Lip Slurs
A Home On The Range
American Folk Song
First Flexibility Study
123
13
23
12

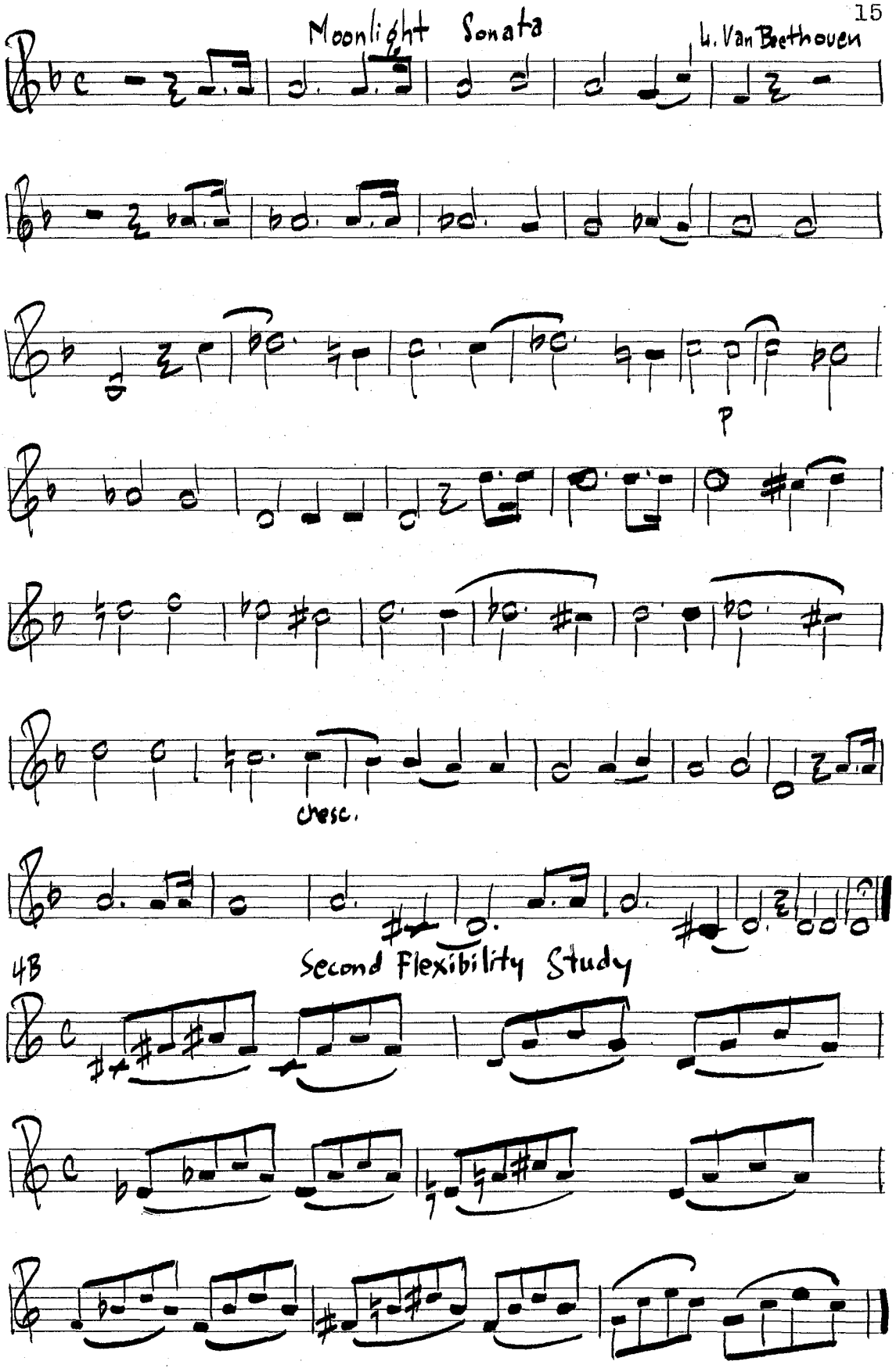


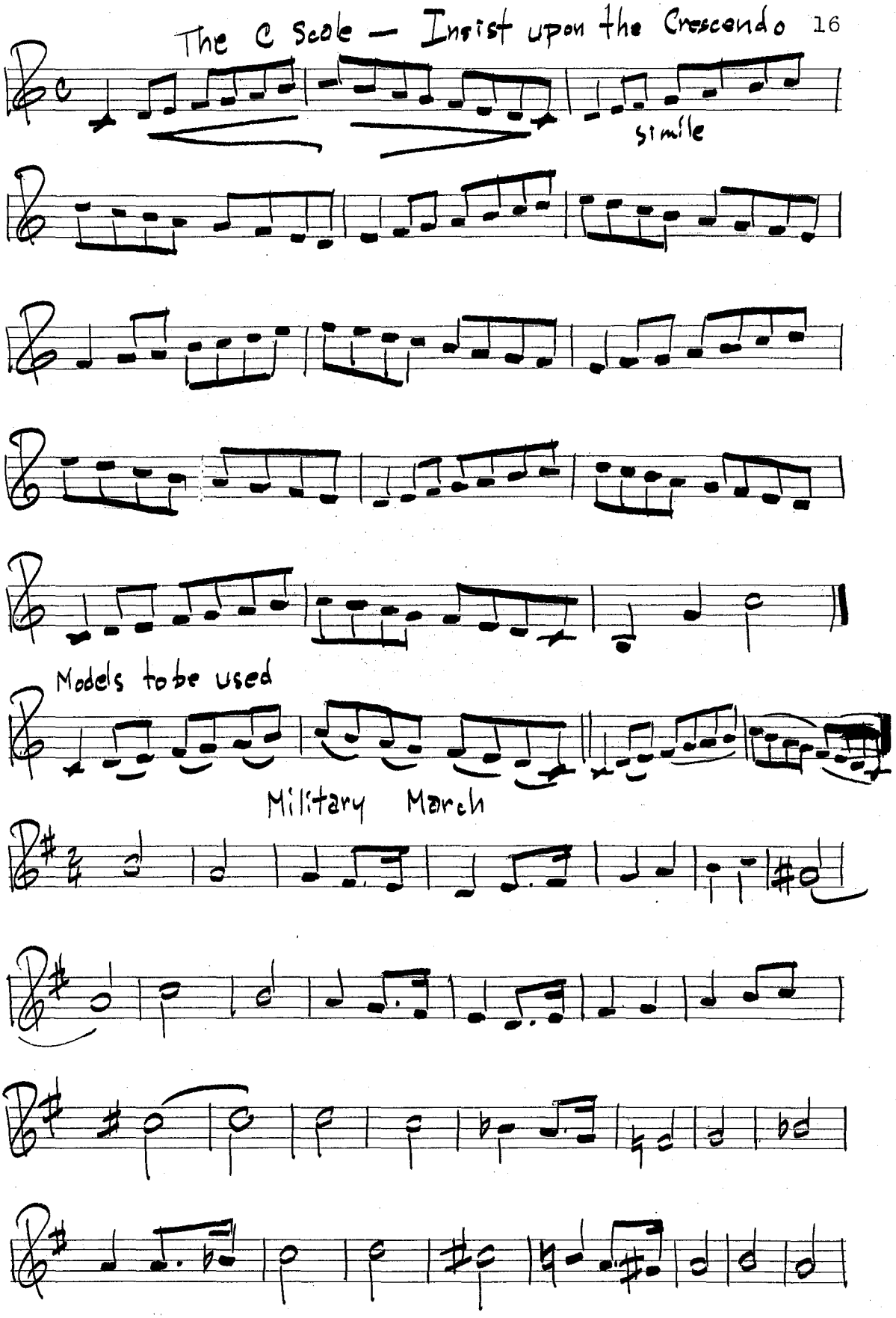
First Study involving pedal C

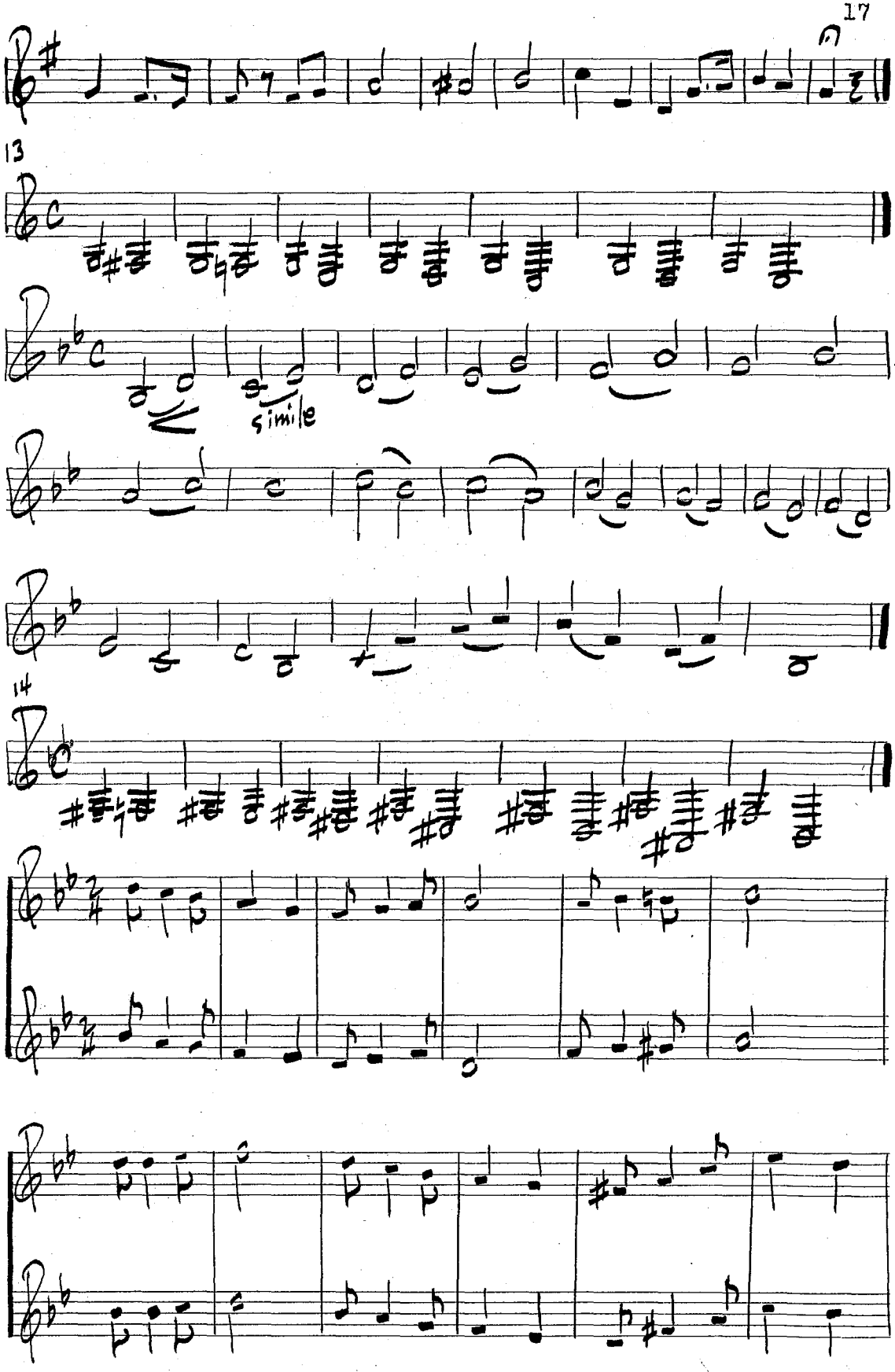


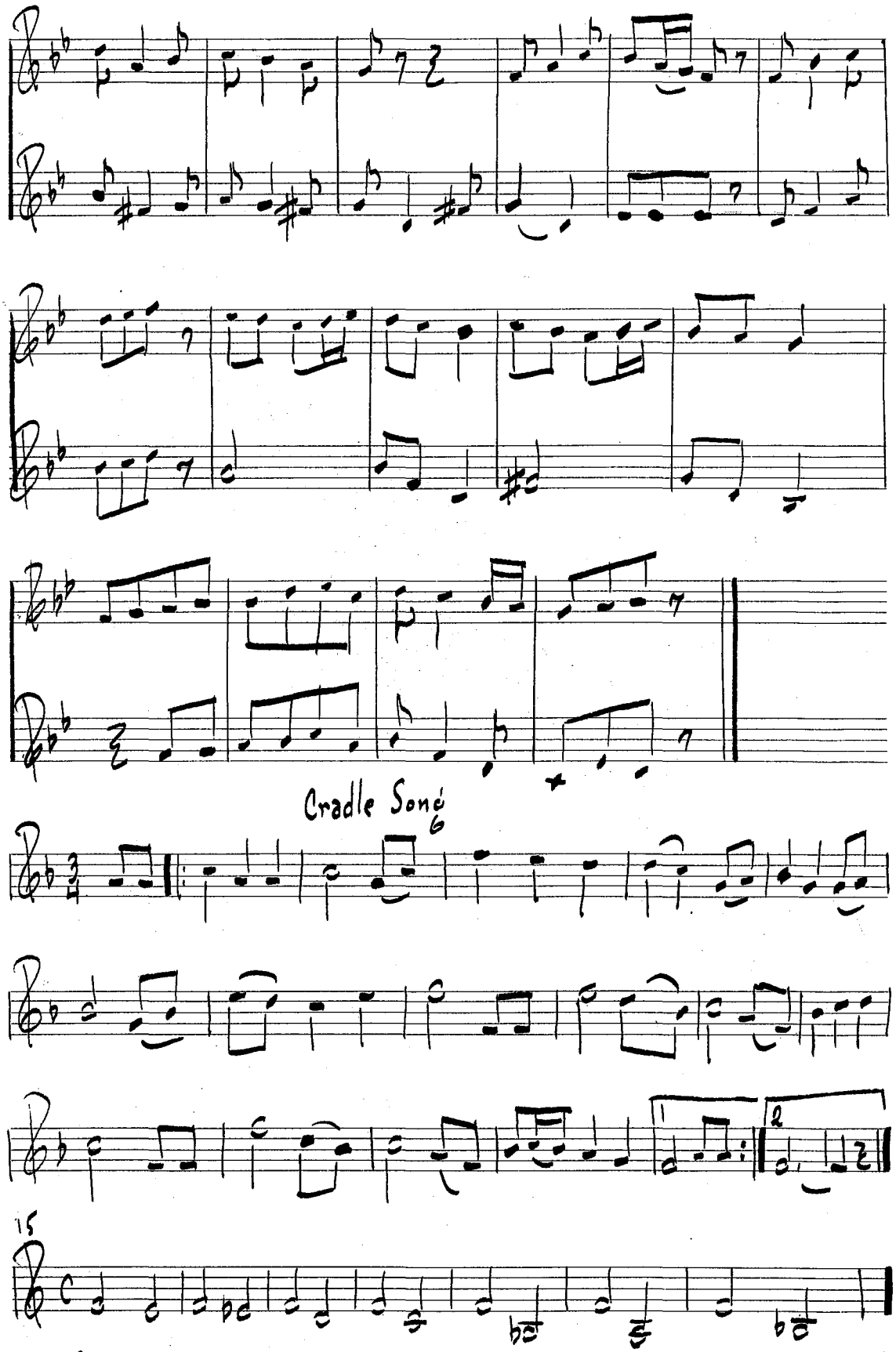
Pedal C is to be played o after a few days




Moonlight Sonata
L. Van Beethoven
P
cresc.
4B
Second Flexibility Study


The C Scale — Insist upon the Crescendo
simile
Models to be used
Military March


13
simile
14


Cradle Song
15
8ve

dc

Third Flexixibility Study

123 13 23 12

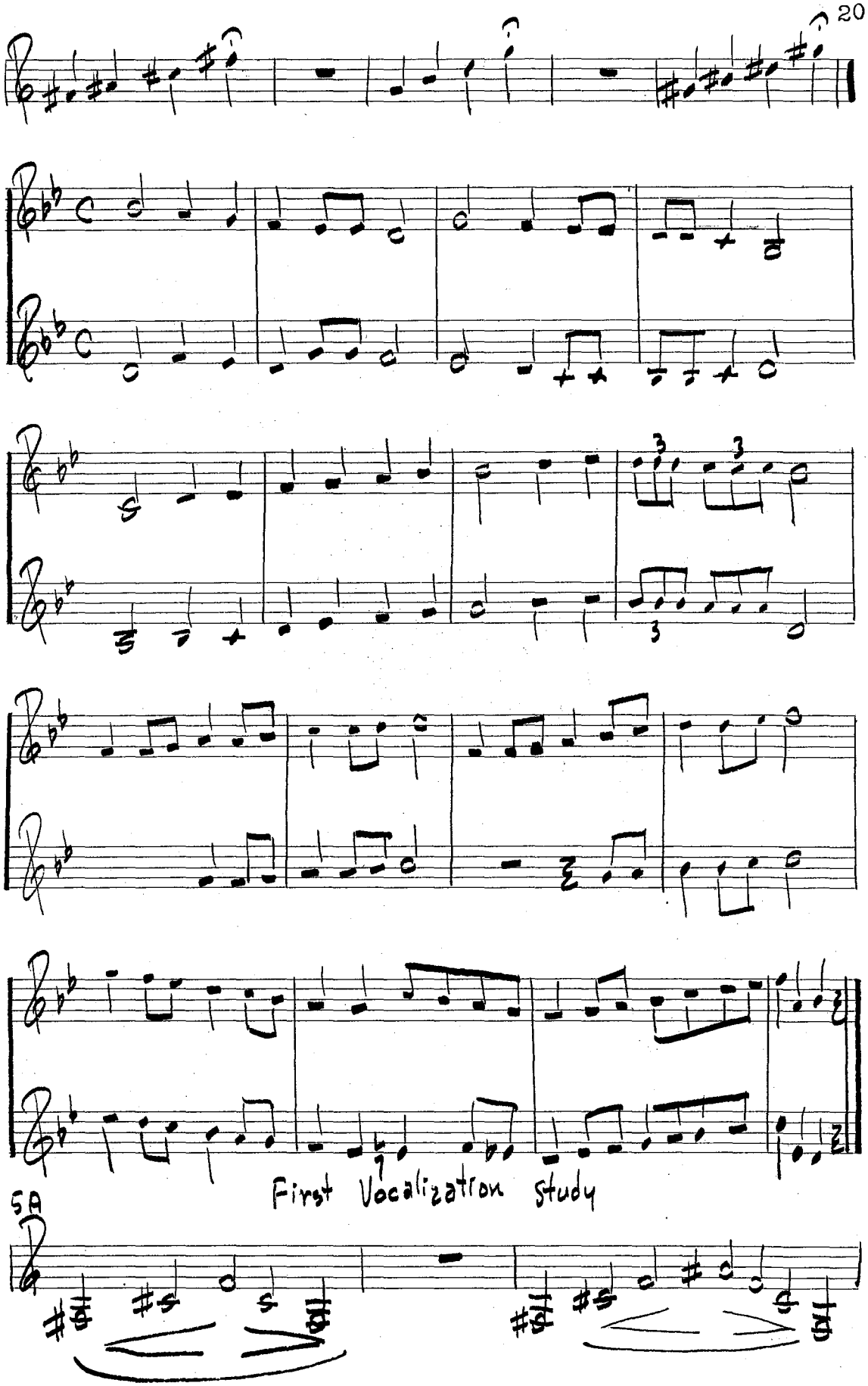
4D

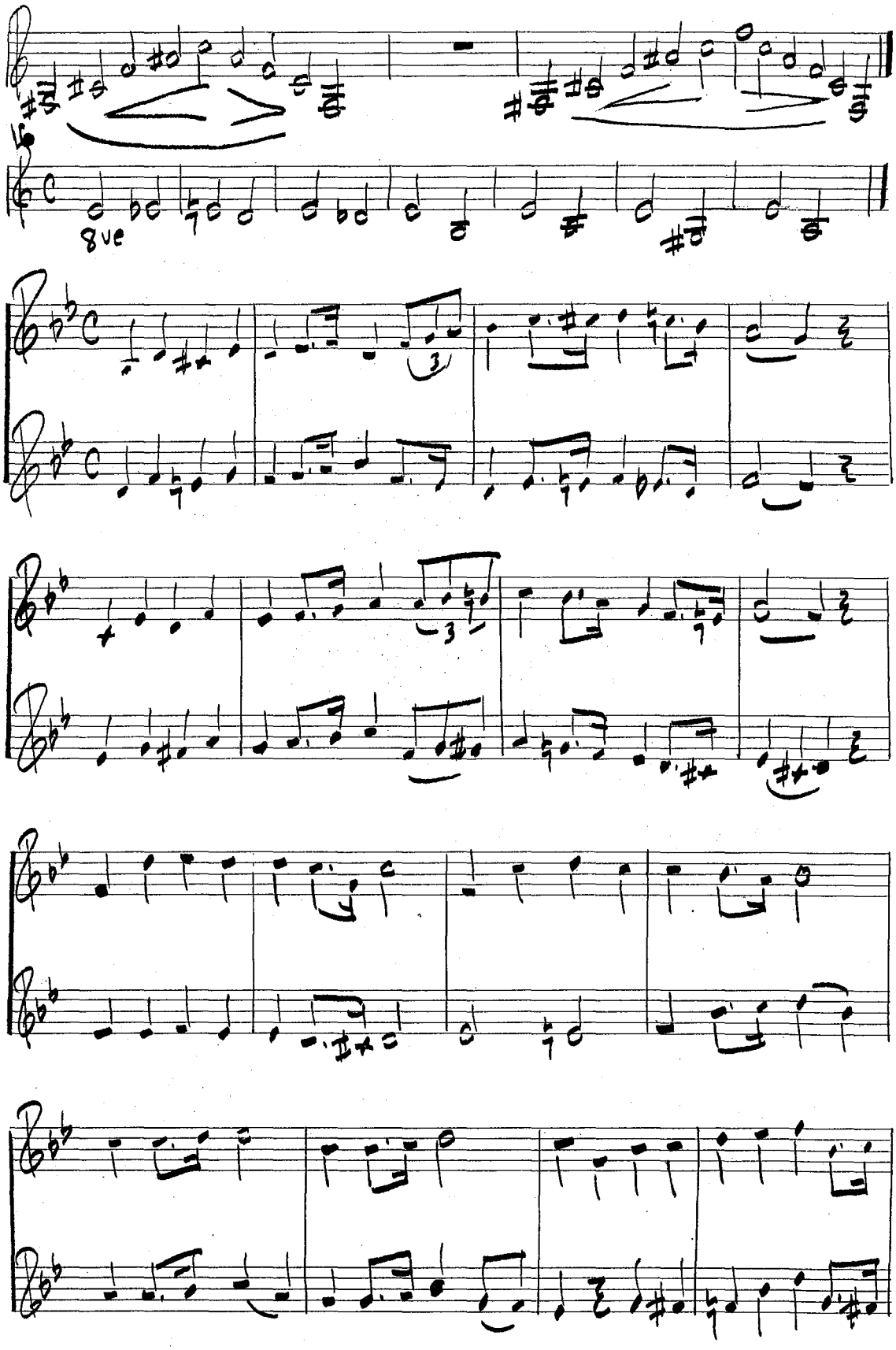
Fourth Flexibility Study

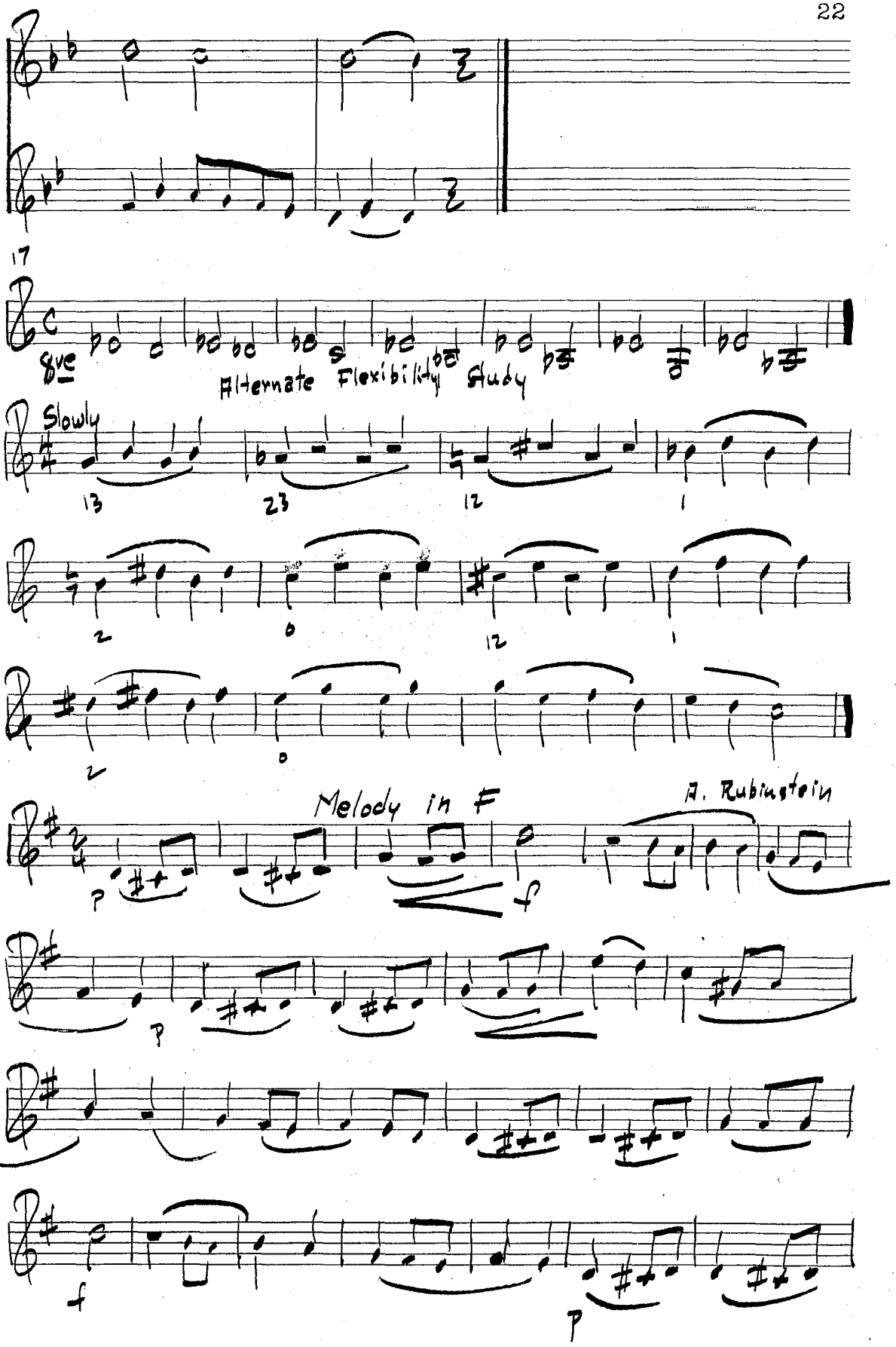
123 13

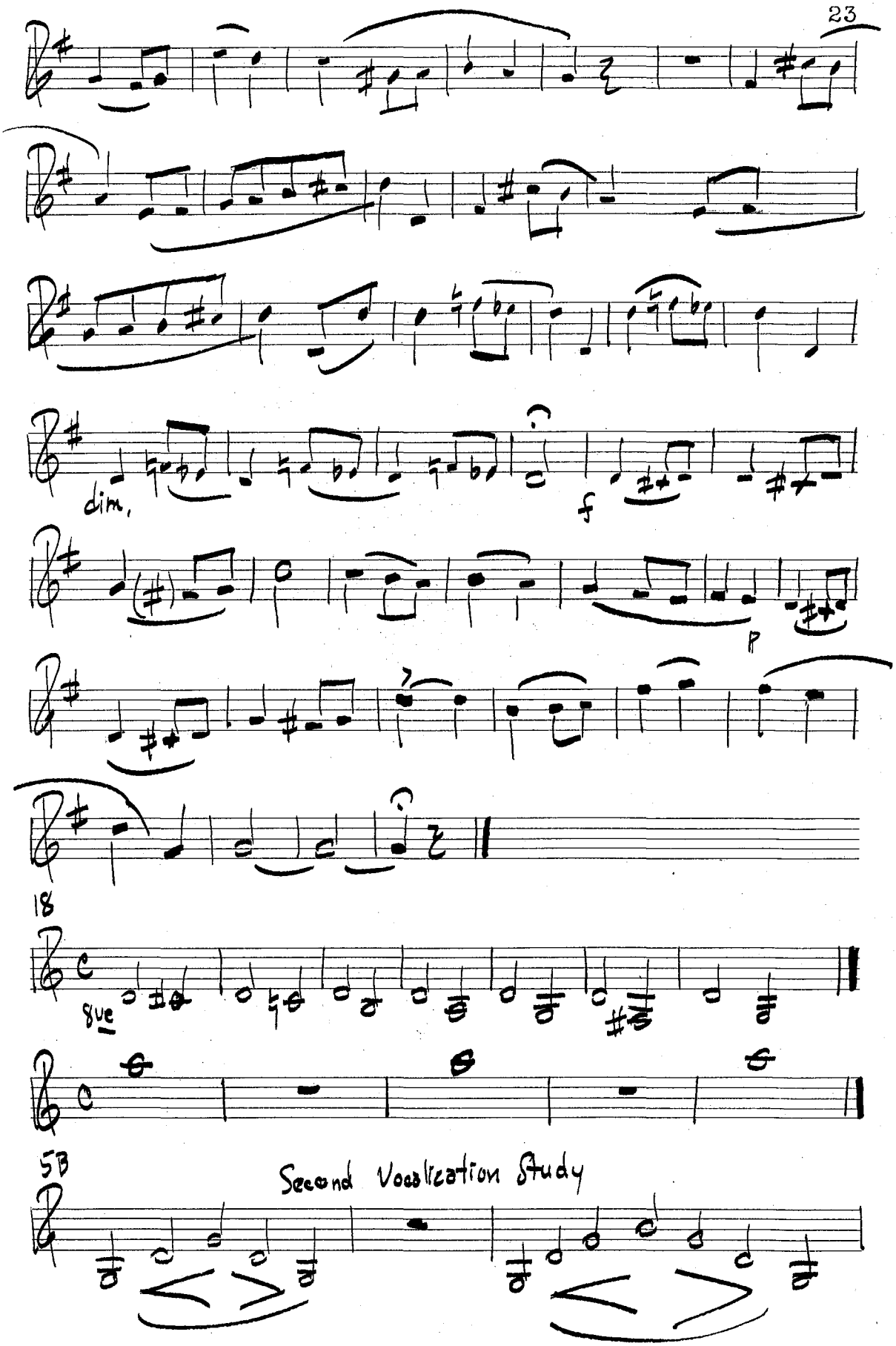
Marcato

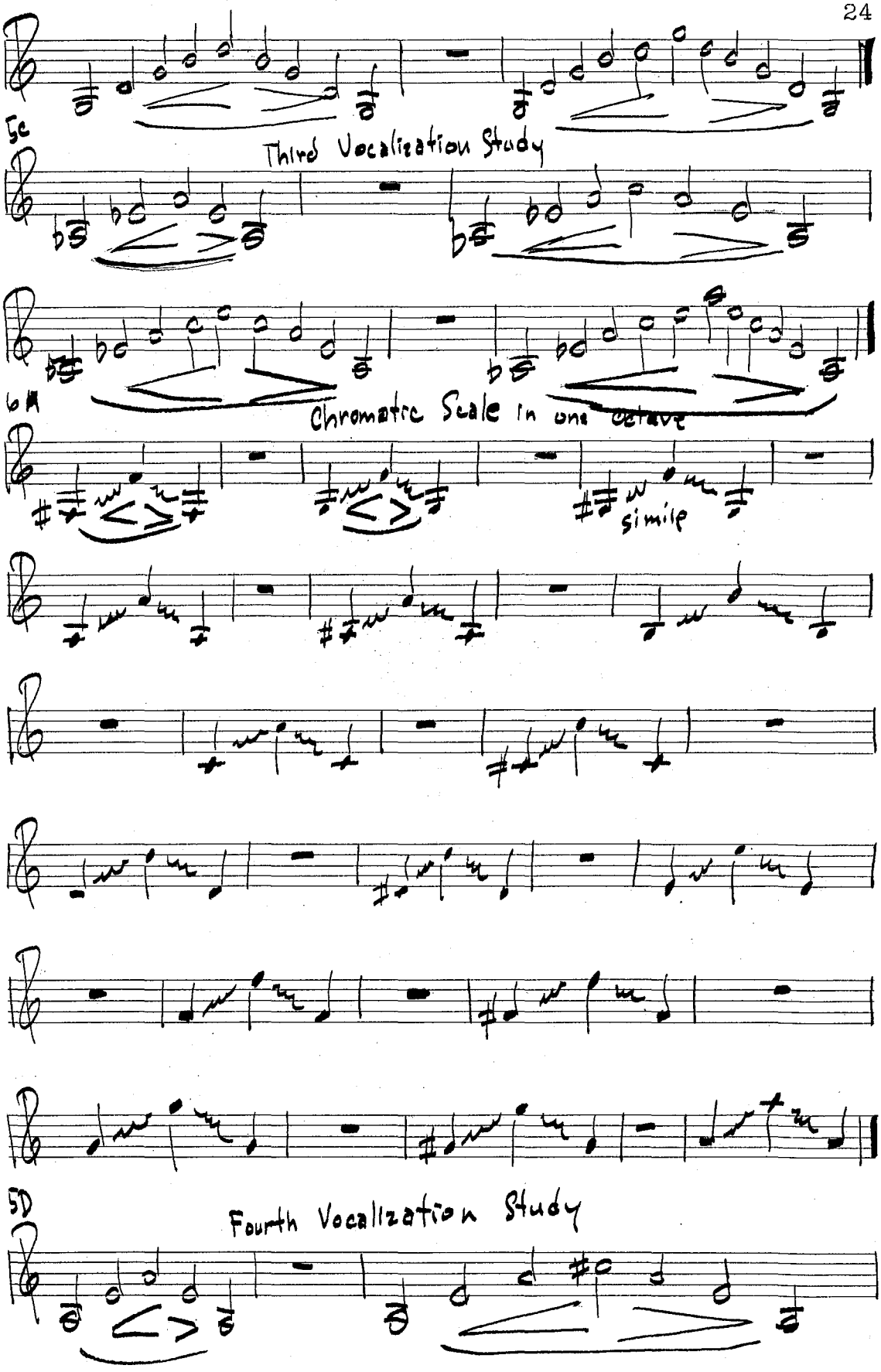
simile

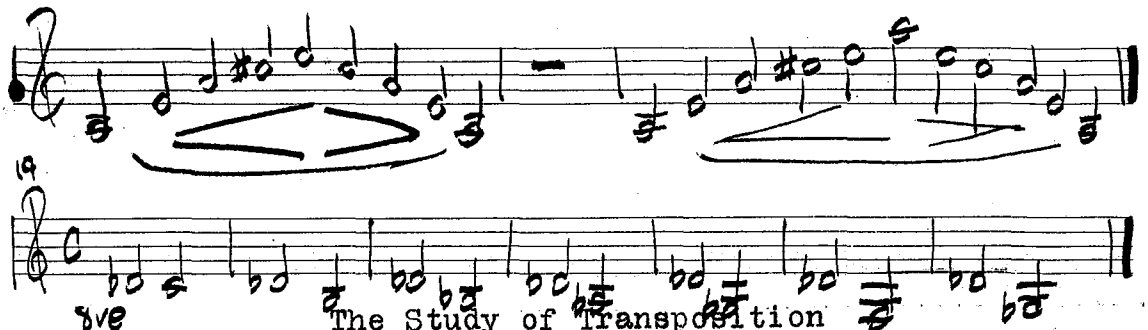

First Vocalization Study
SA


8ve


17
8va
Alternate Flexibility Study
Slowly
13
23
12
1
2
0
12
1
2
0
Melody in F
A. Rubinstein
p
f
p
f
p


dim.
f
p
18
8ve
53
Second Vocalization Study

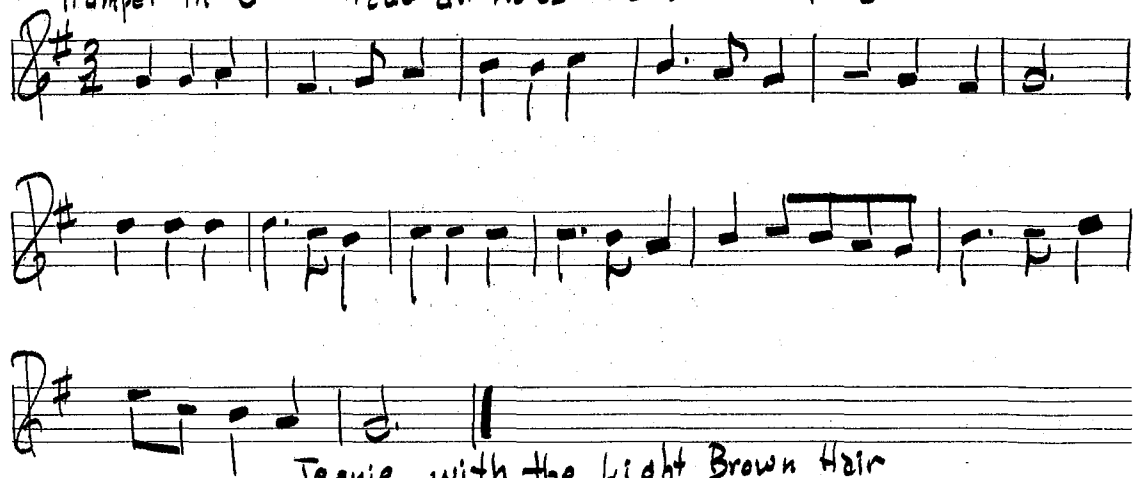

5c
Third Vocalization Study
6A
Chromatic Scale in one octave
simile
5D
Fourth Vocalization Study



The Study of Transposition

The system used in this method is interval transposition.

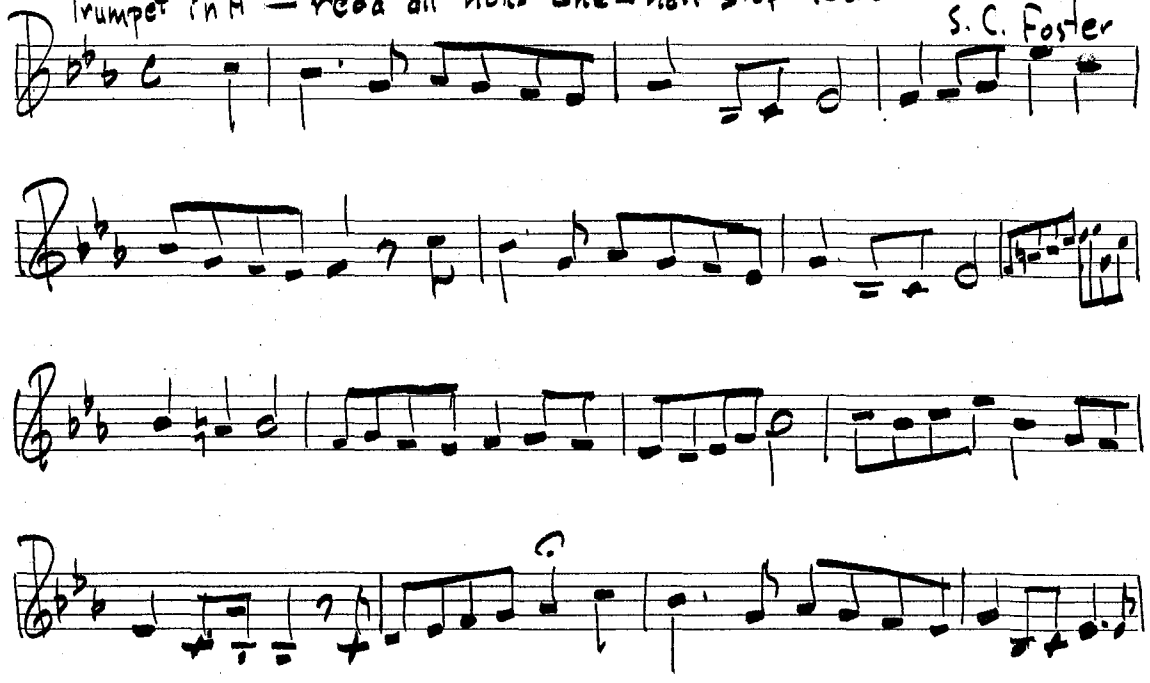
Trumpet in C — read America all notes one whole step higher

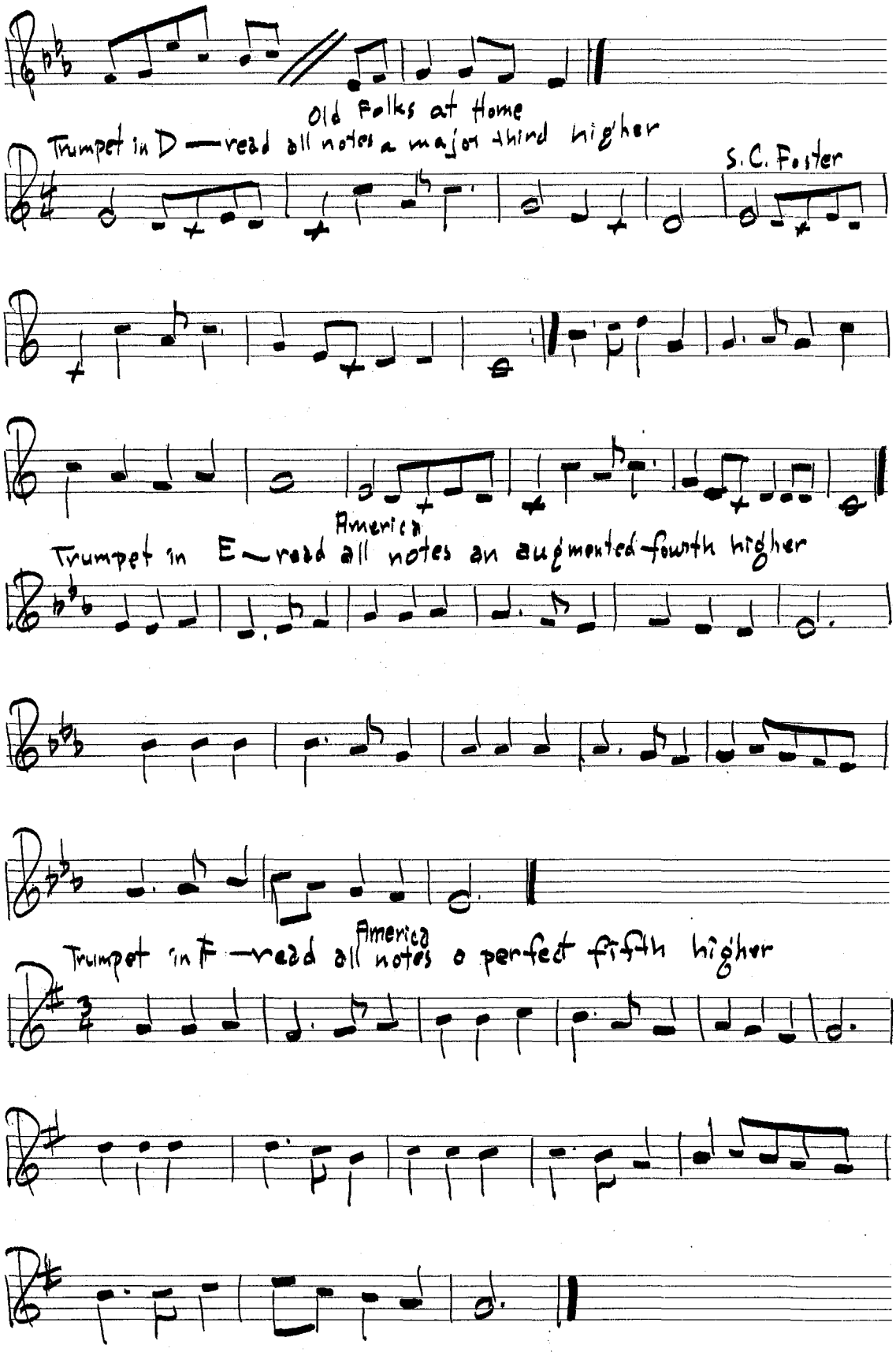


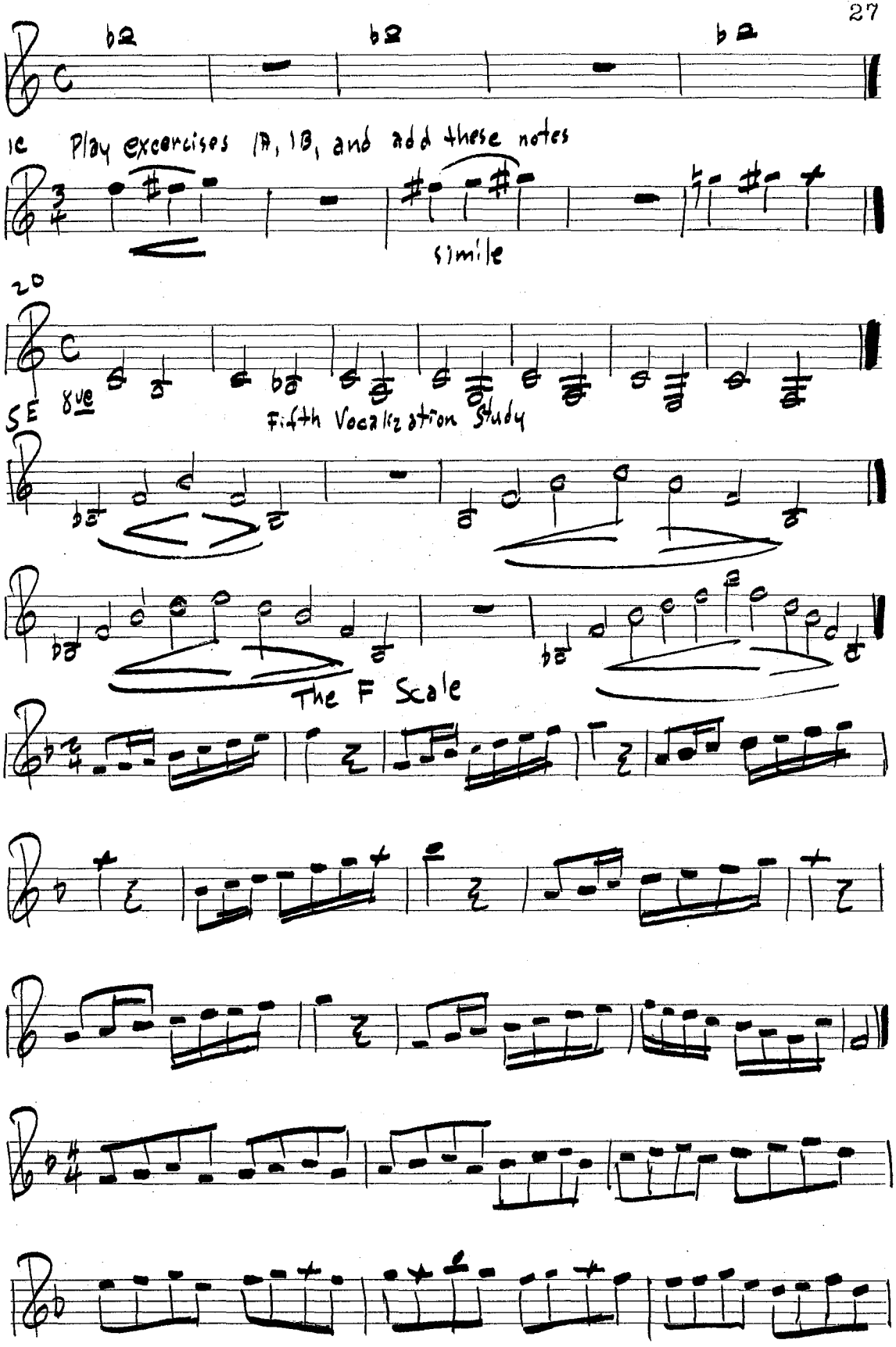
Jeanie with the Light Brown Hair

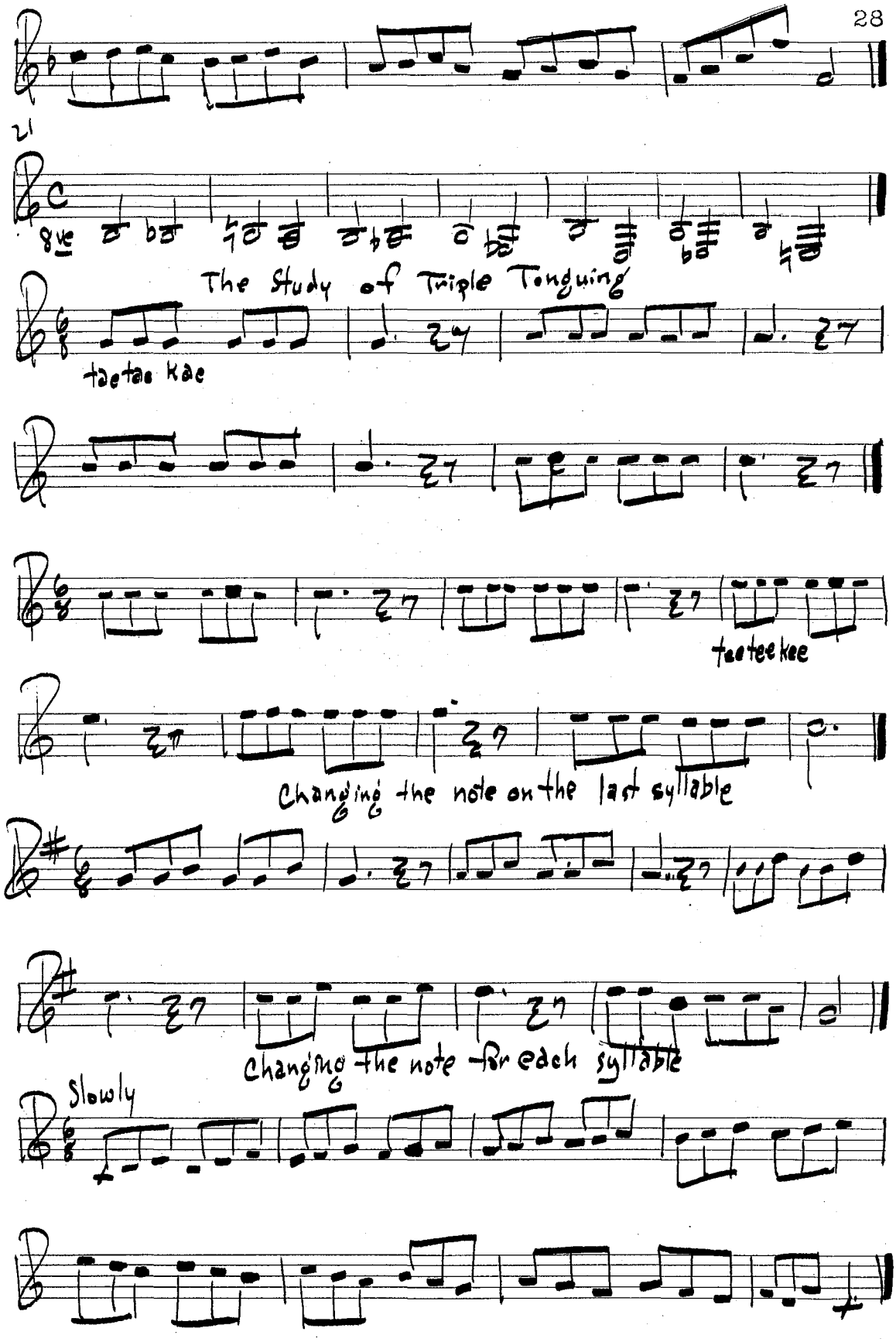
Trumpet in A — read all notes one-half step lower

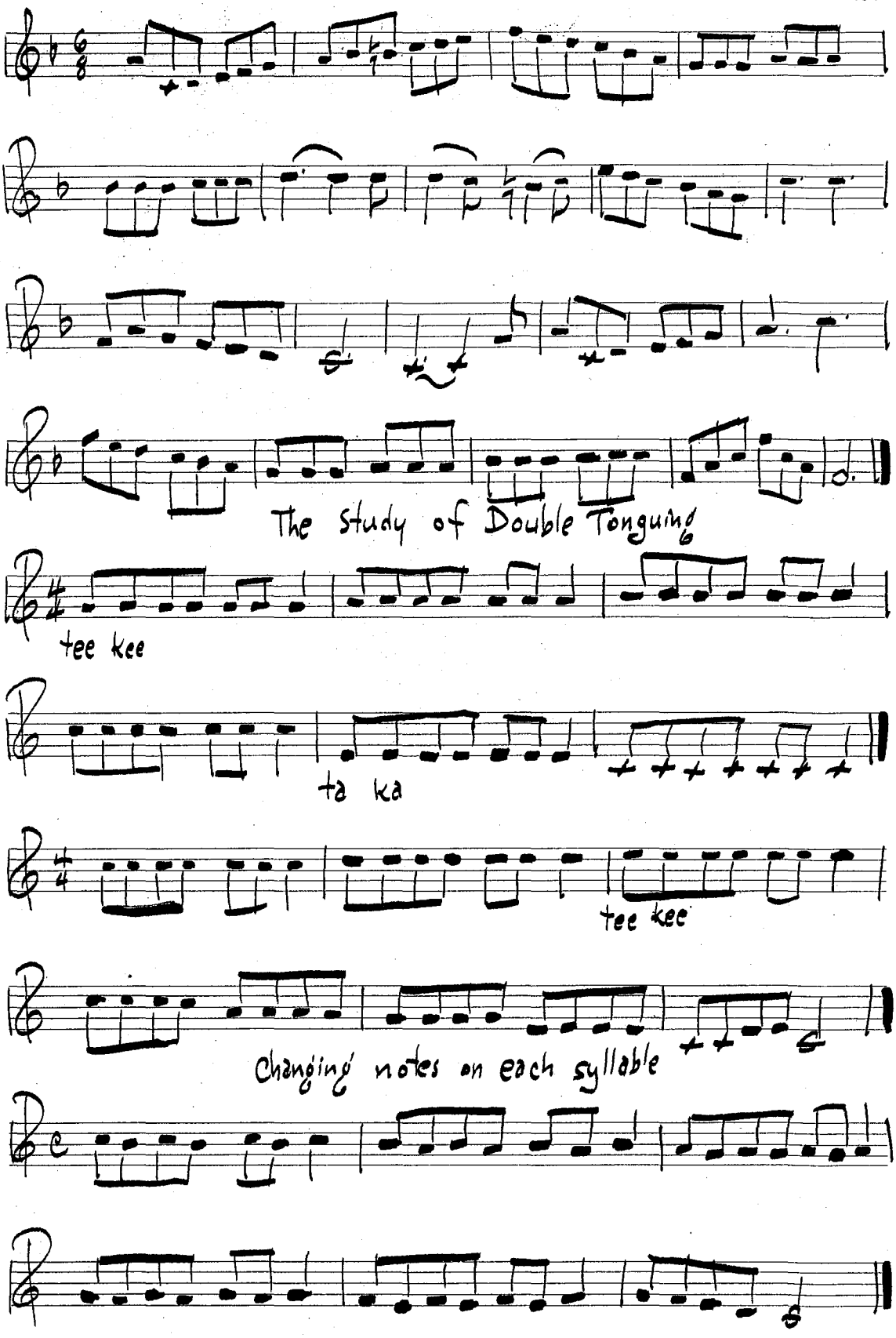
S. C. Foster



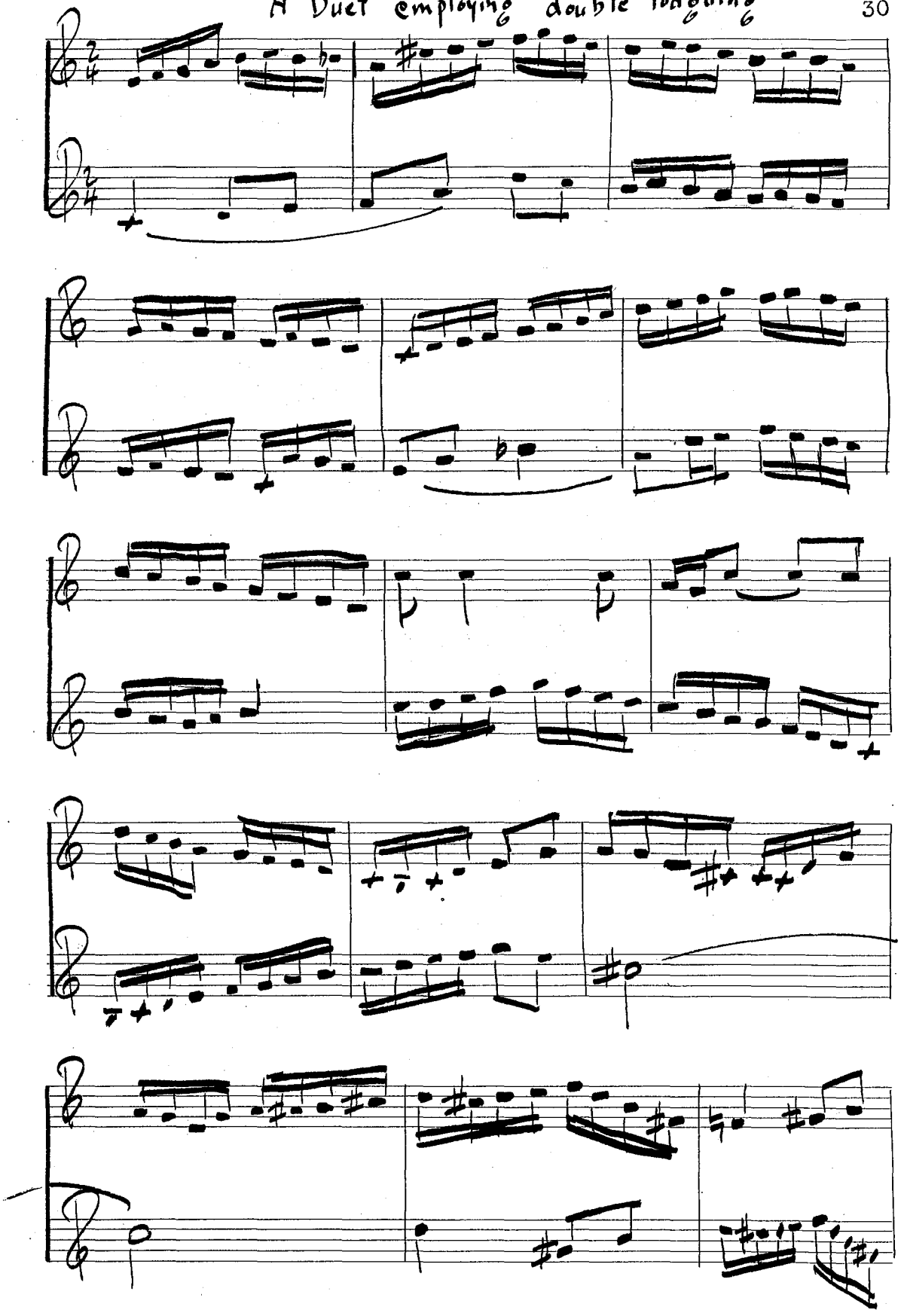

Old Folks at Home
Trumpet in D — read all notes a major third higher
S. C. Foster
America
Trumpet in E — read all notes an augmented-fourth higher
America
Trumpet in F — read all notes a perfect fifth higher

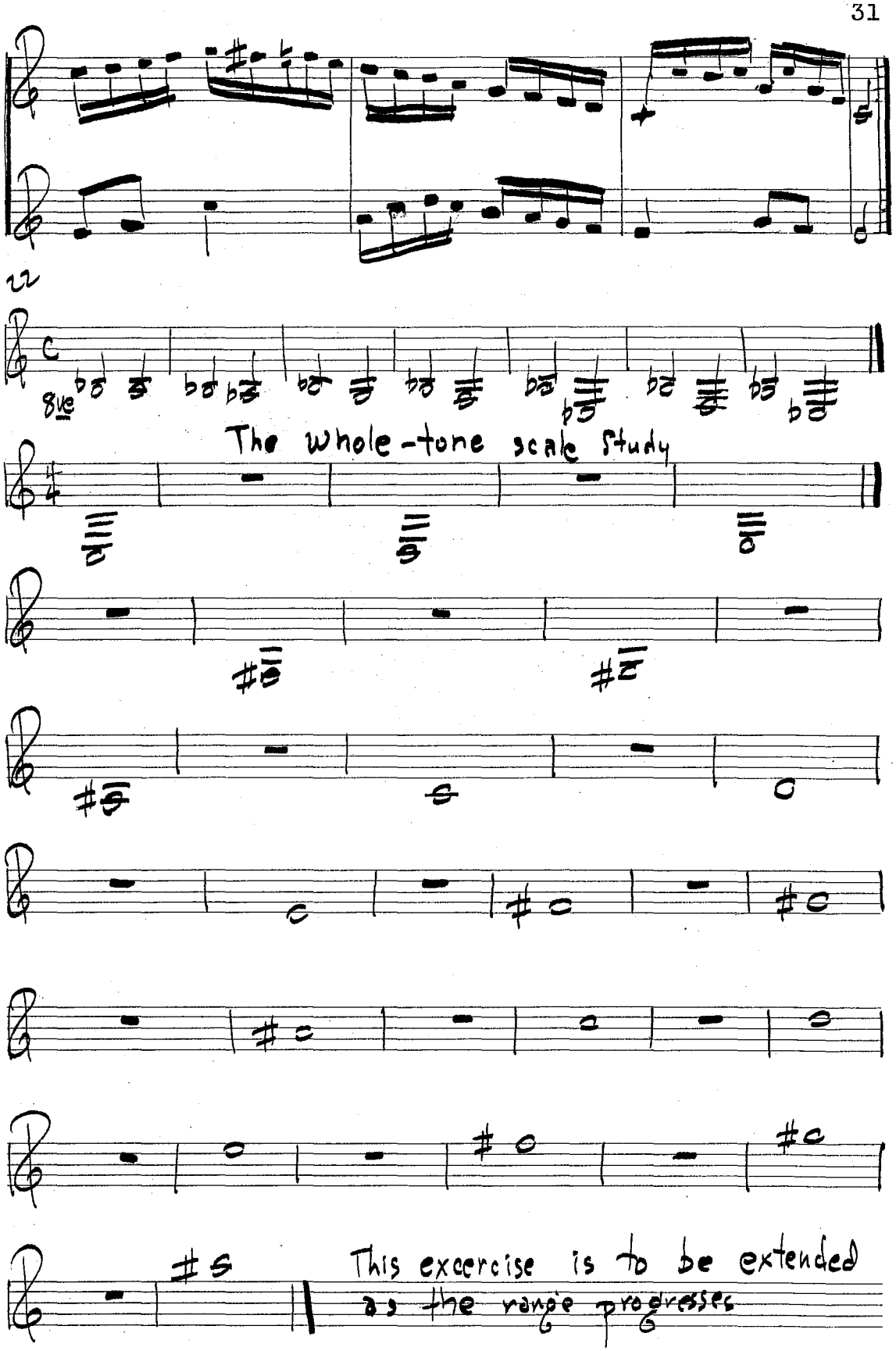

1c Play excercises 1A, 1B, and add these notes
simile
2D
8va
Fifth Vocalization Study
The F Scale


The Study of Triple Tonguing
tae tae kae
tee tee kee
Changing the note on the last syllable
Changing the note for each syllable
Slowly

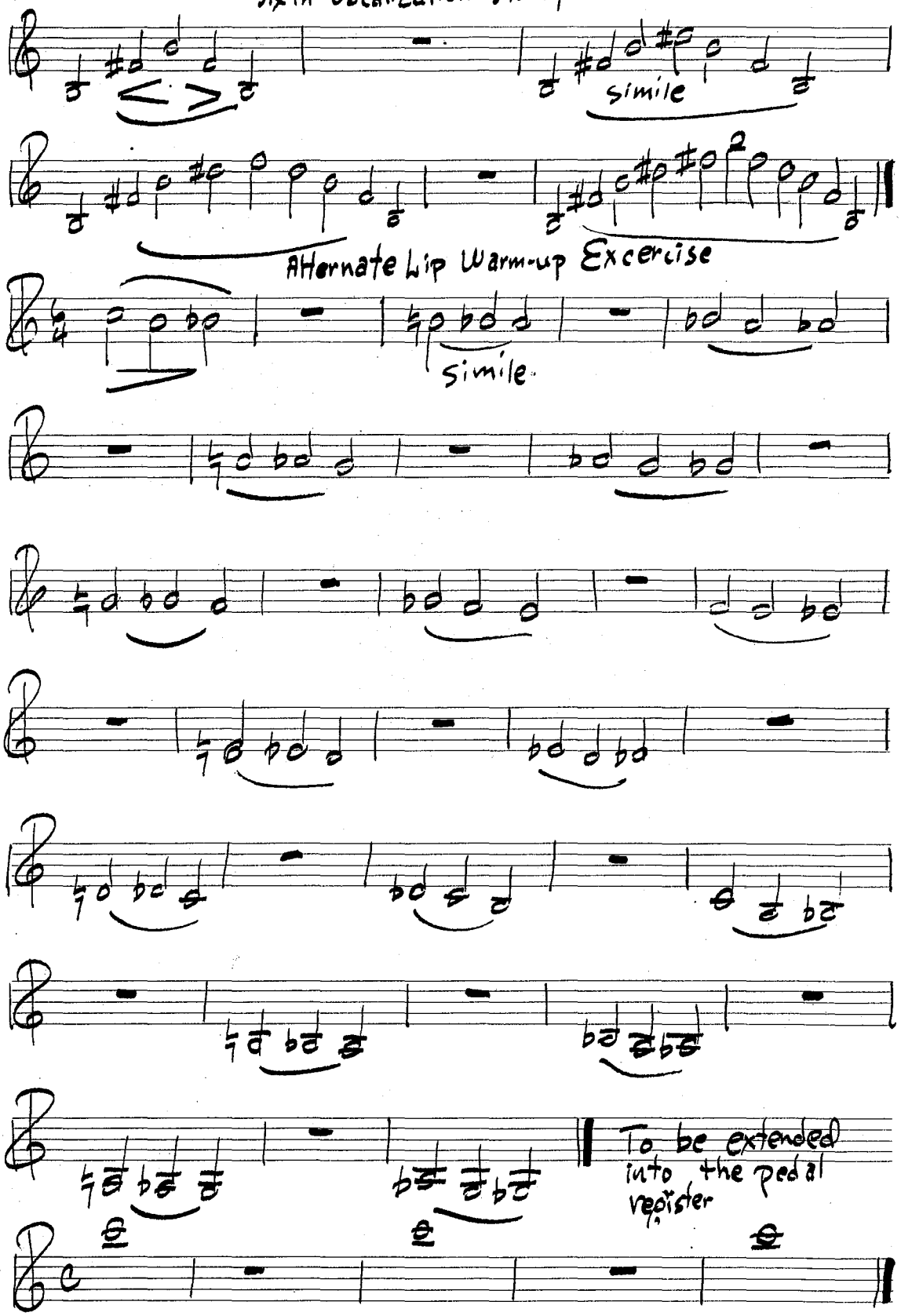

The Study of Double Tonguing
tee kee
ta ka
tee kee
Changing notes on each syllable

A Duet employing double tonguing



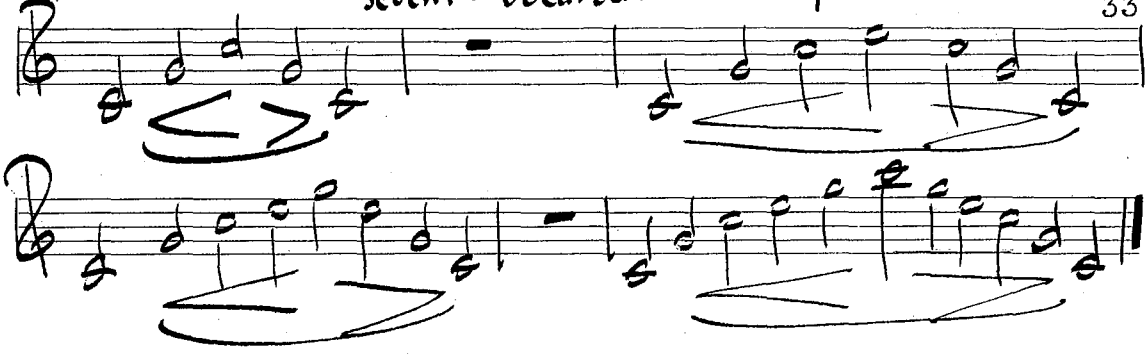

8va
The whole-tone scale study
This excercise is to be extended
as the range progresses

Sixth Vocalization Study



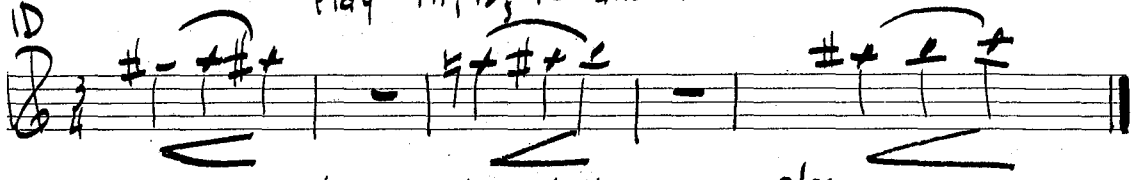
Seventh Vocalization Study

5G



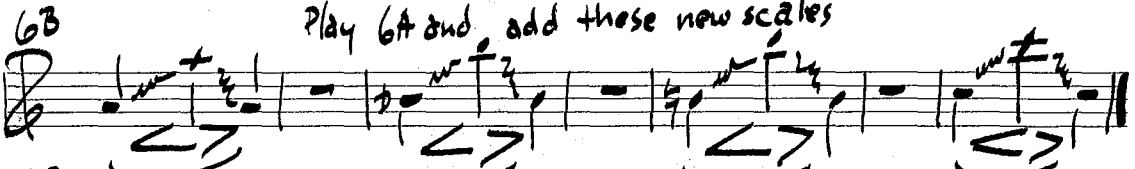
Play 1A, 1B, 1C and add these notes

1D



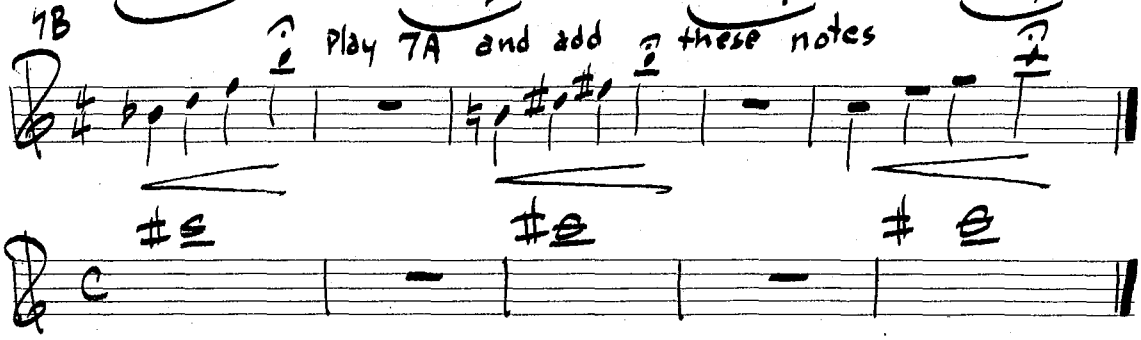
Play 6A and add these new scales

6B



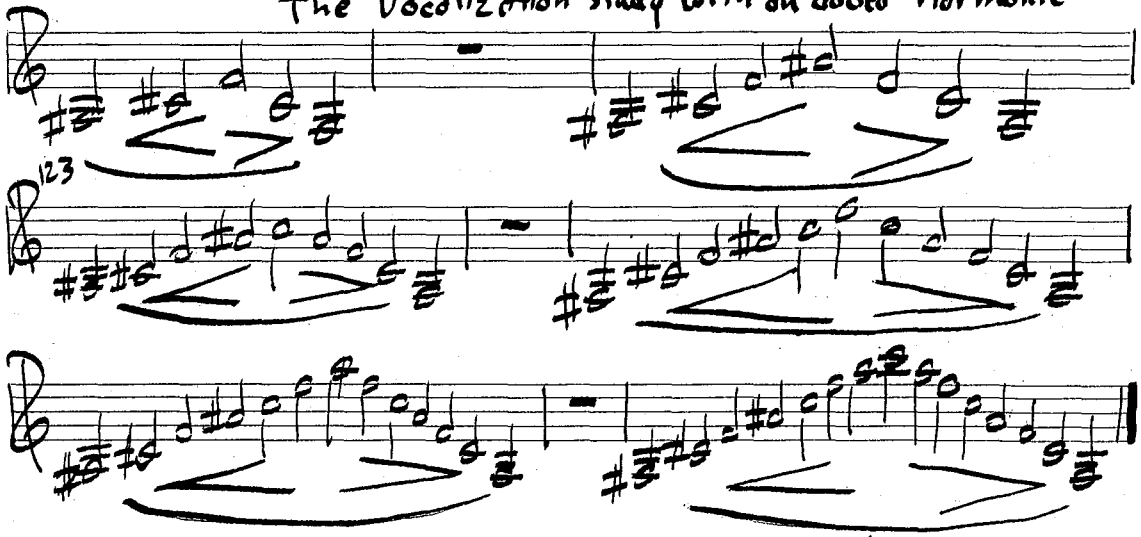
Play 7A and add these notes

7B



The Vocalization Study with an added harmonic

123

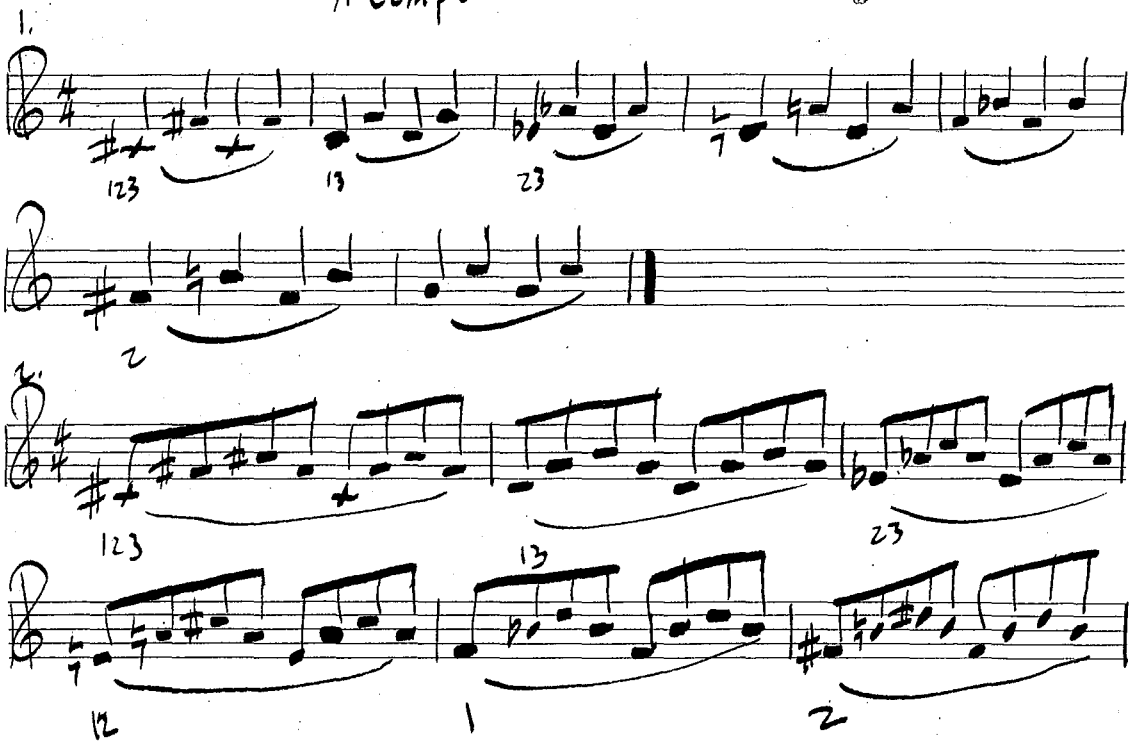


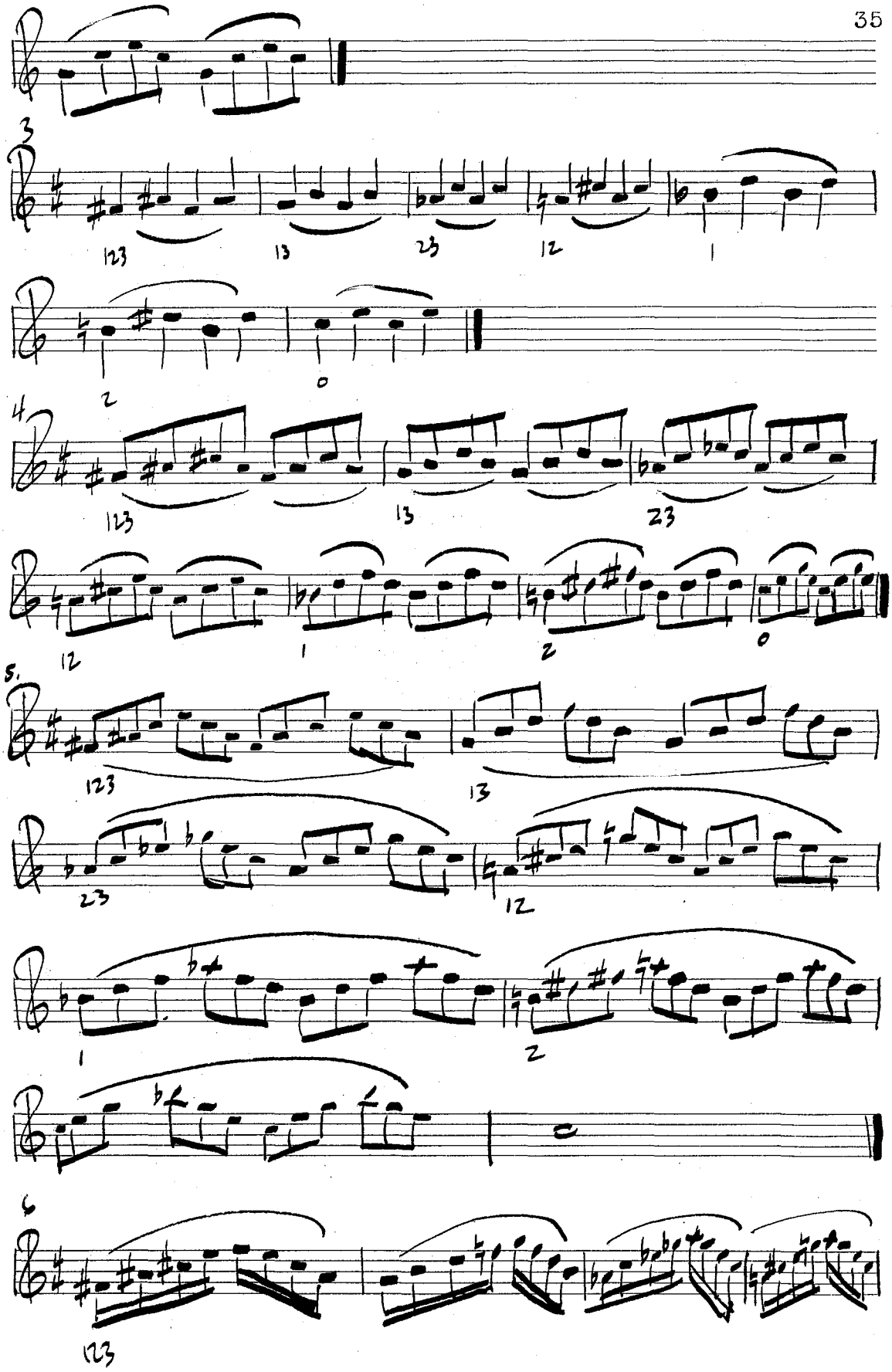
Register Excercise

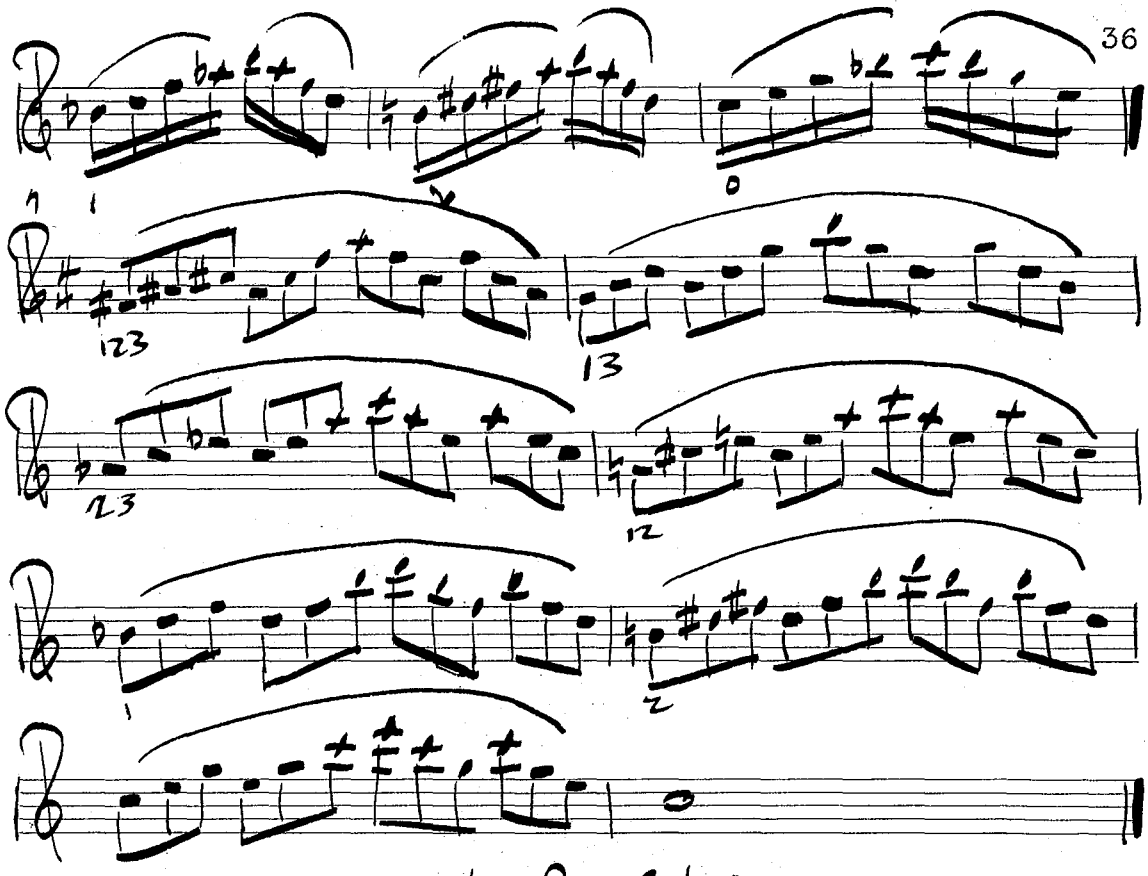
simile

simile

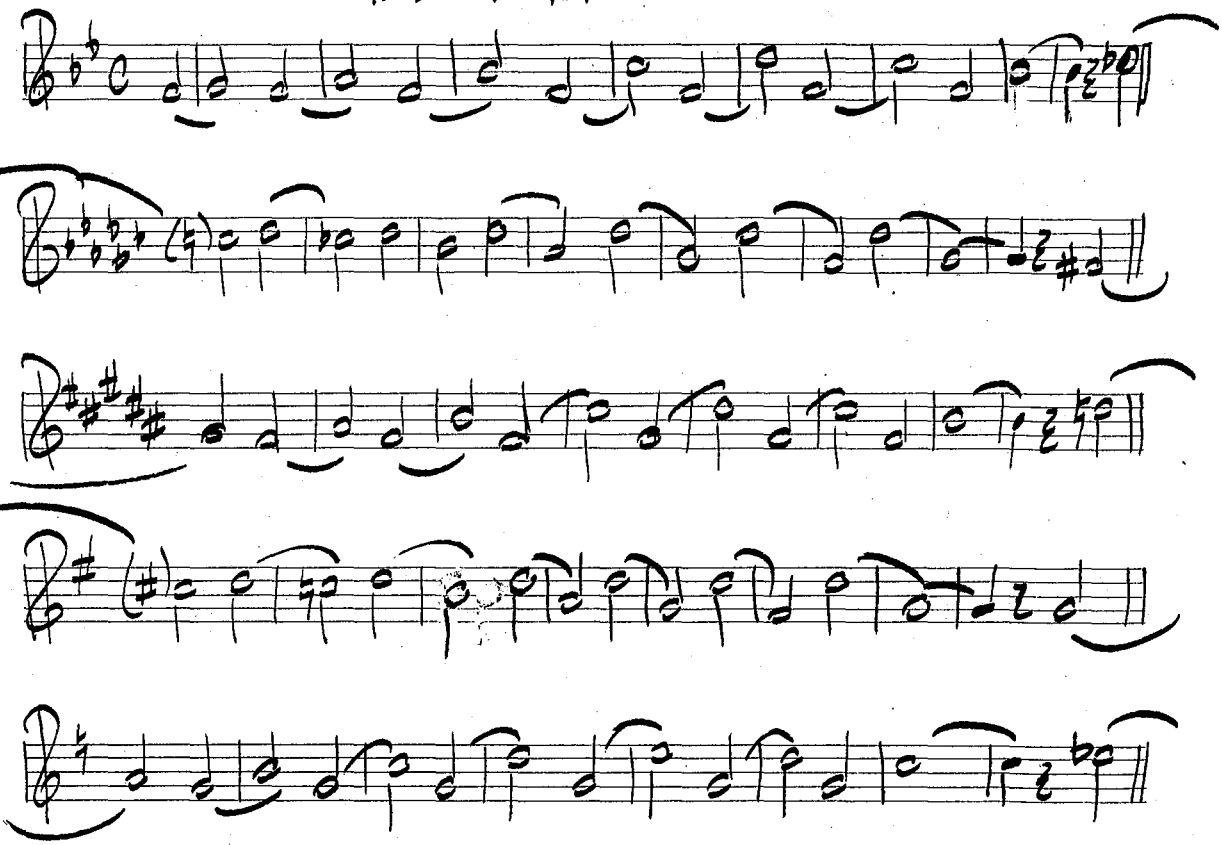
A Complete Set of lip building studies

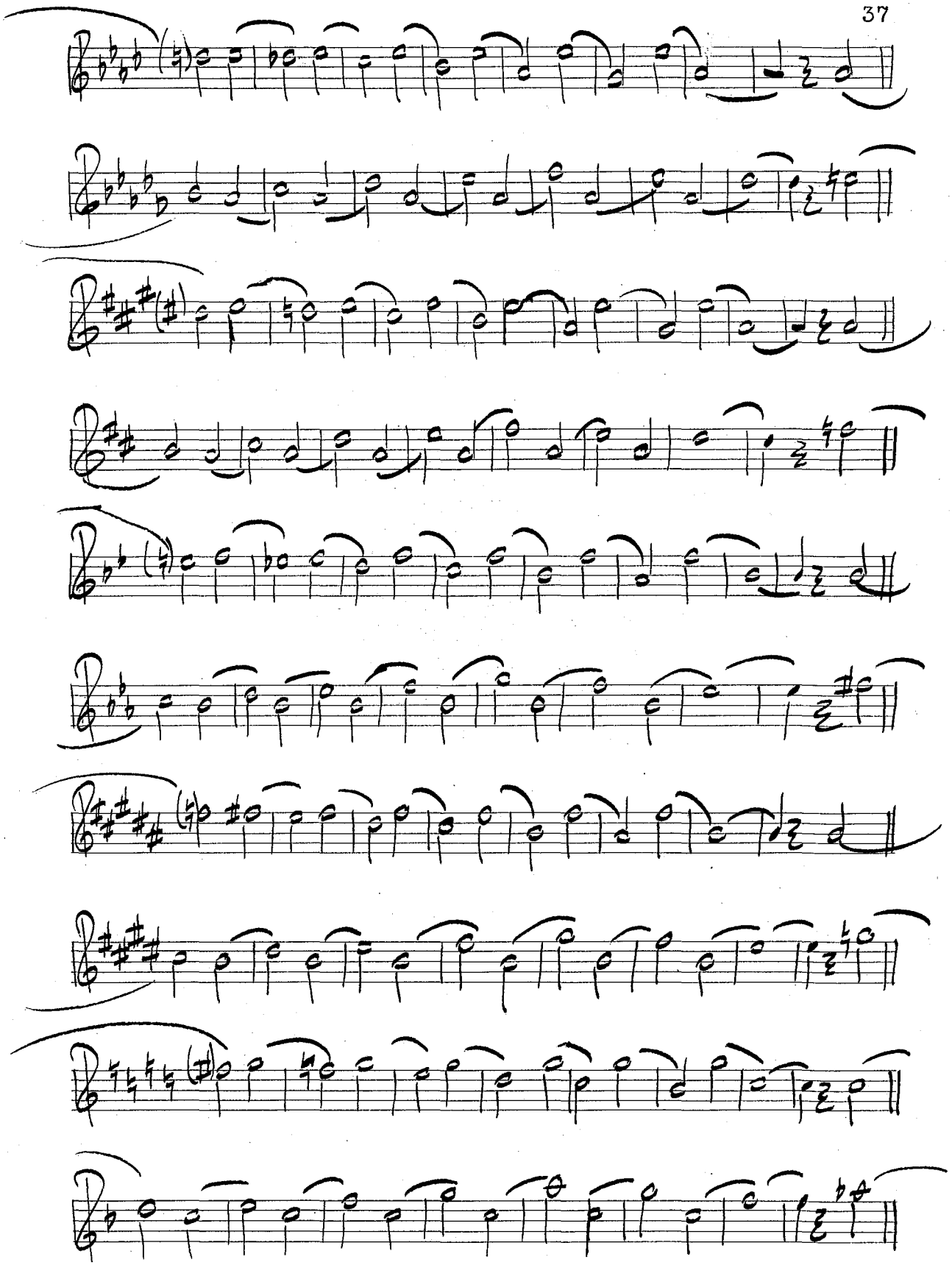


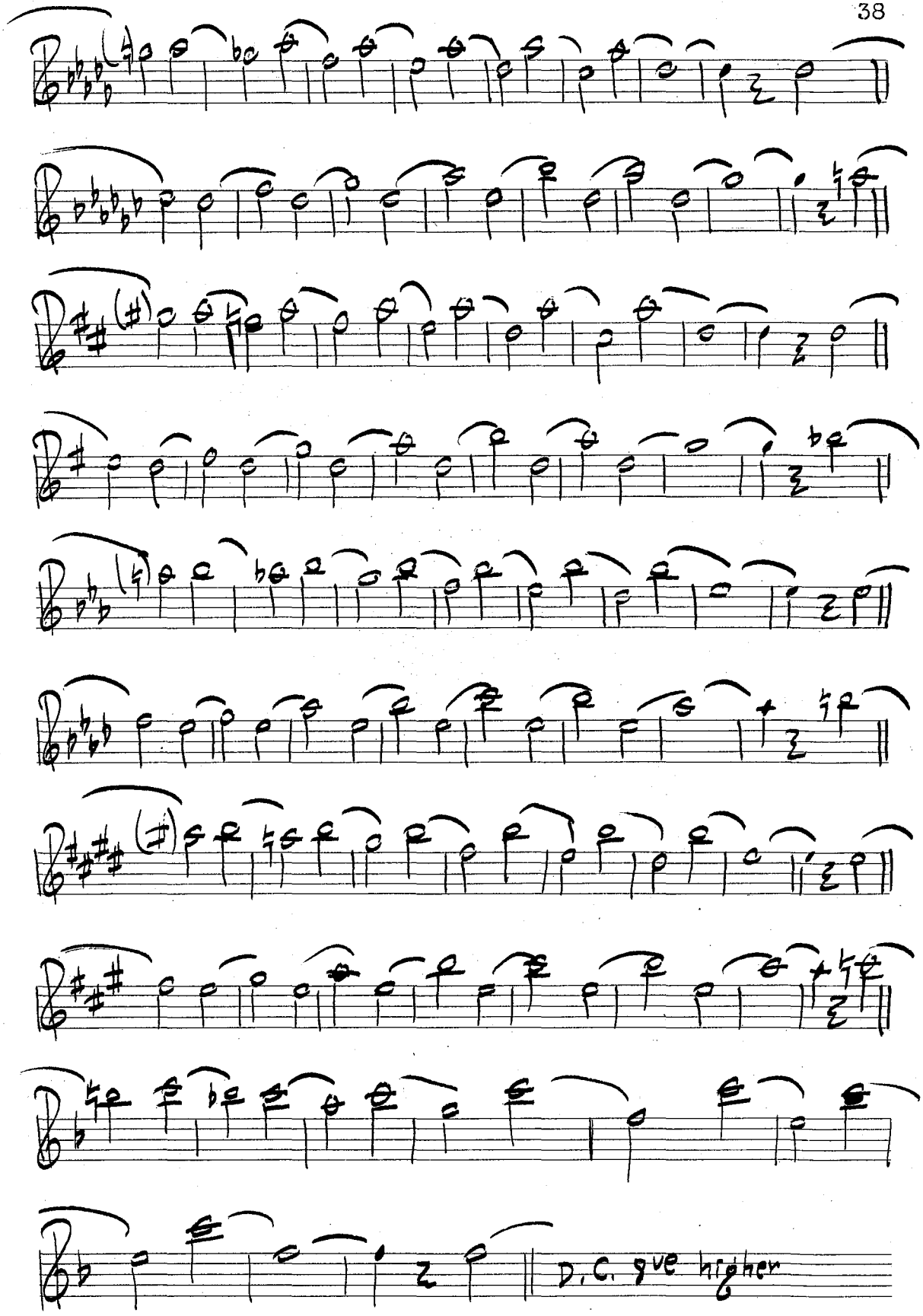

3
123
13
23
12
1
2
0
4
123
13
23
12
1
2
0
5
123
13
23
12
1
2
6
123



A Study for Endurance

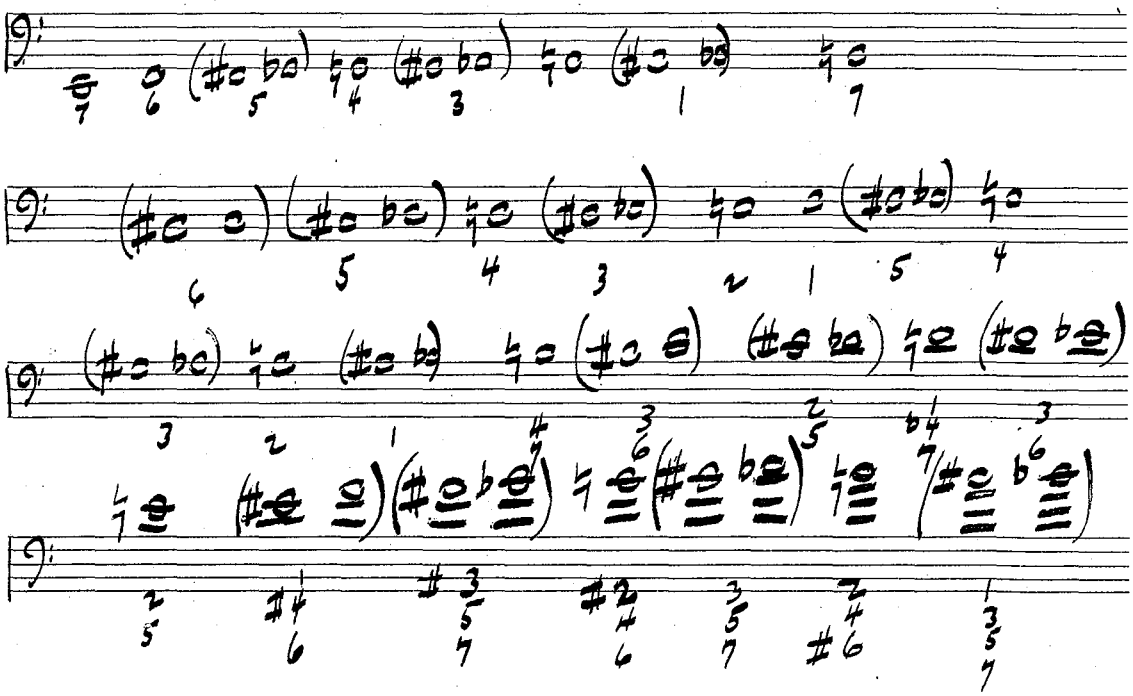




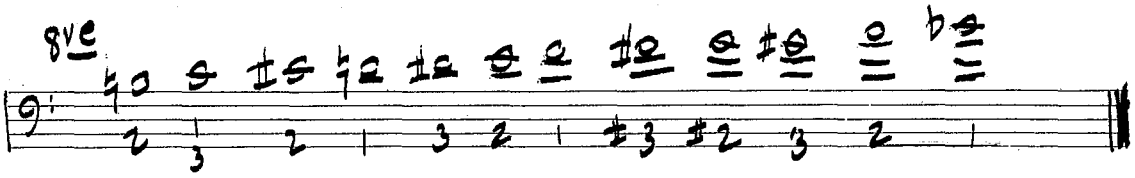

D.C. 8ve higher

The positions of the trombone slide correspond exactly to the fingerings of the trumpet. First position for the trombone is the same as when no valves are used on the trumpet. Second position corresponds to the second valve. Third position is the same as the first valve. Fourth position corresponds to first and second valves. Fifth position corresponds to second and third valves. Sixth position is the same as first and third valves, and seventh position corresponds to first, second and third valves. The positions for all pedal tones are the same as those used for the lowest octave of the normal register. For example pedal A uses the same position as low A.

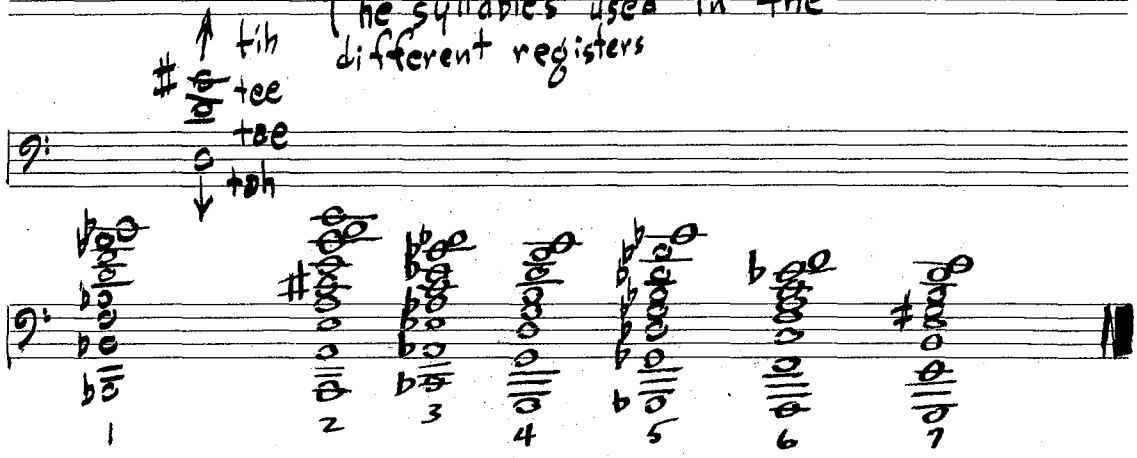
Positions for the normal register



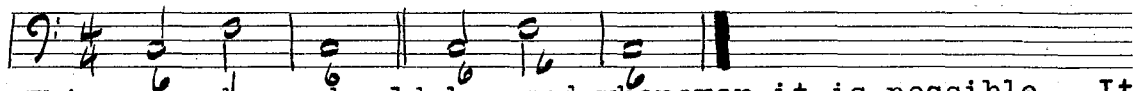
The positions above high B♭



The syllables used in the different registers

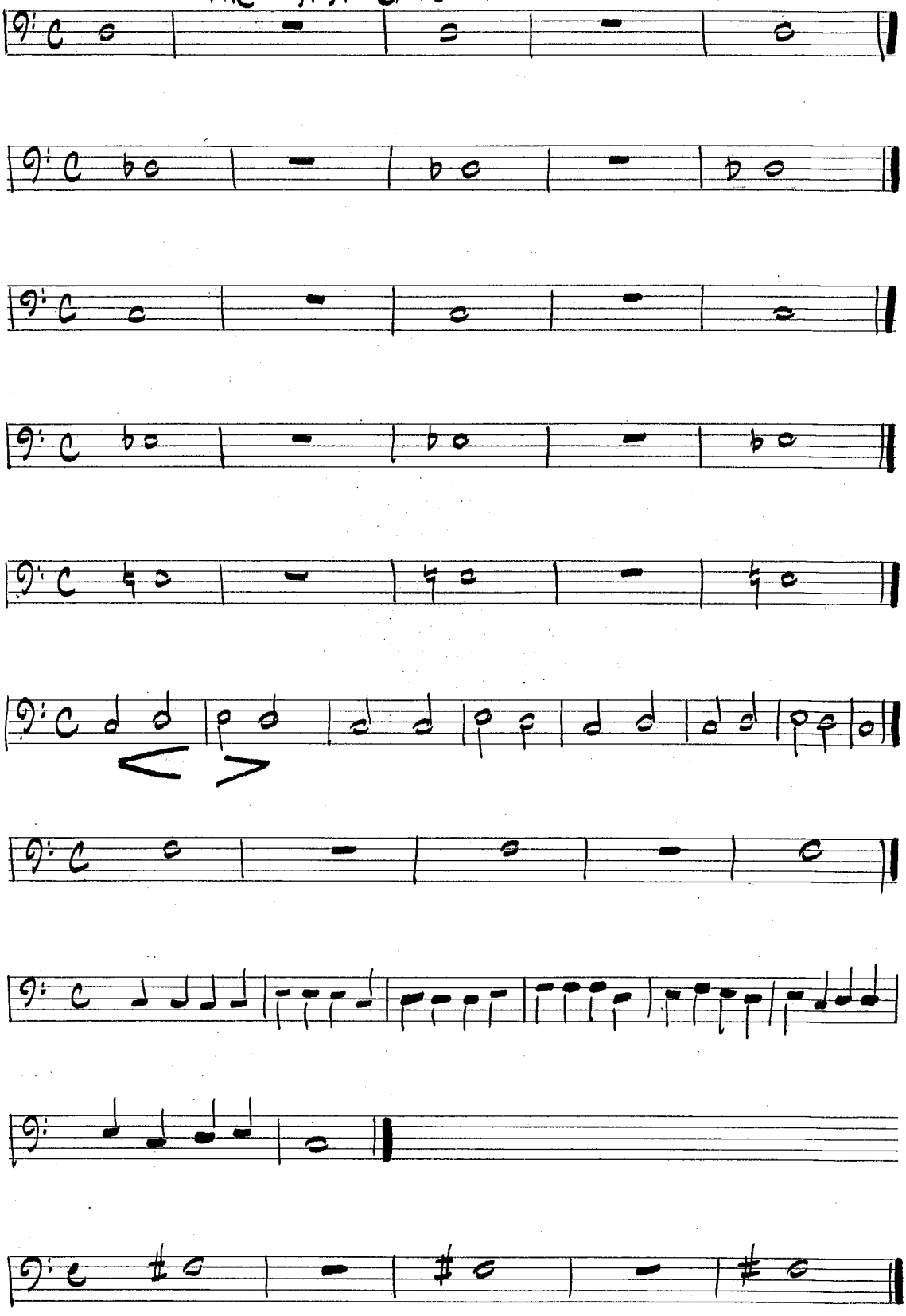


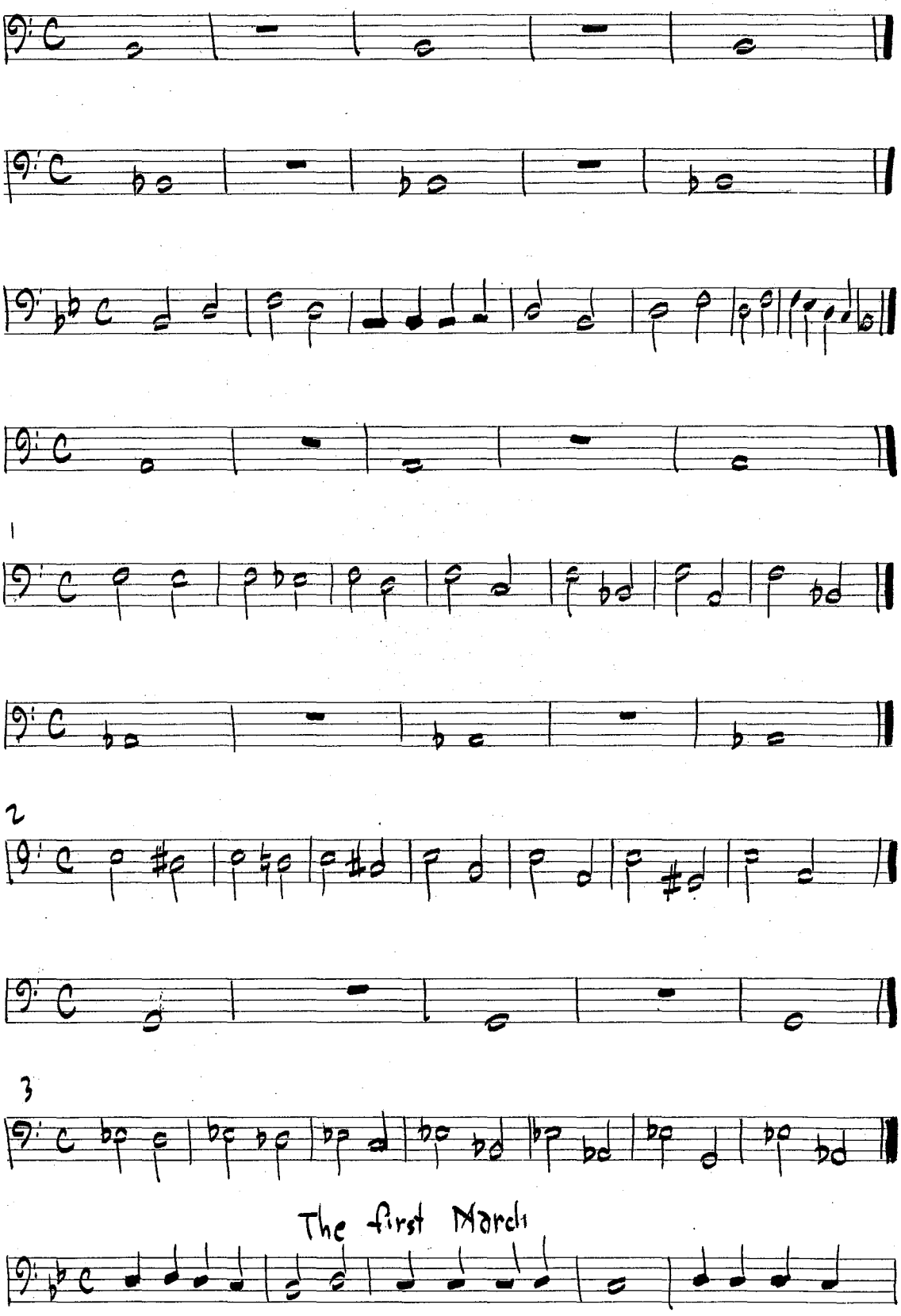
When playing the overtone series many auxiliary or false positions are used. After the student has become well acpuainted with the regular positions he should learn the proper use of the auxiliary positions. This will greatly facilitate playing. In looking at the overtone series for the first position, it is noticed that F can be played in first or sixth position. In the following example it would be better to use the second set of positions than the first.

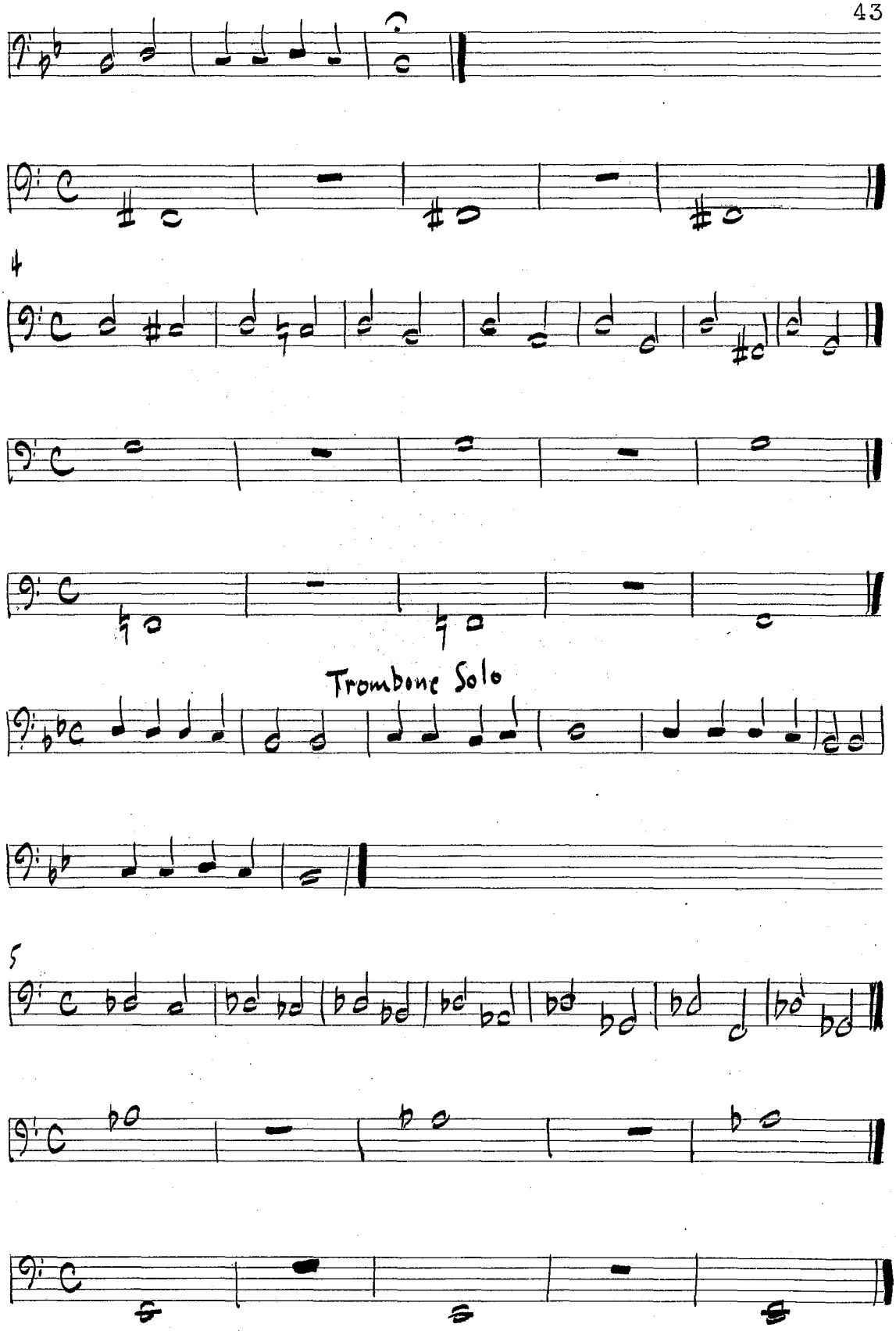


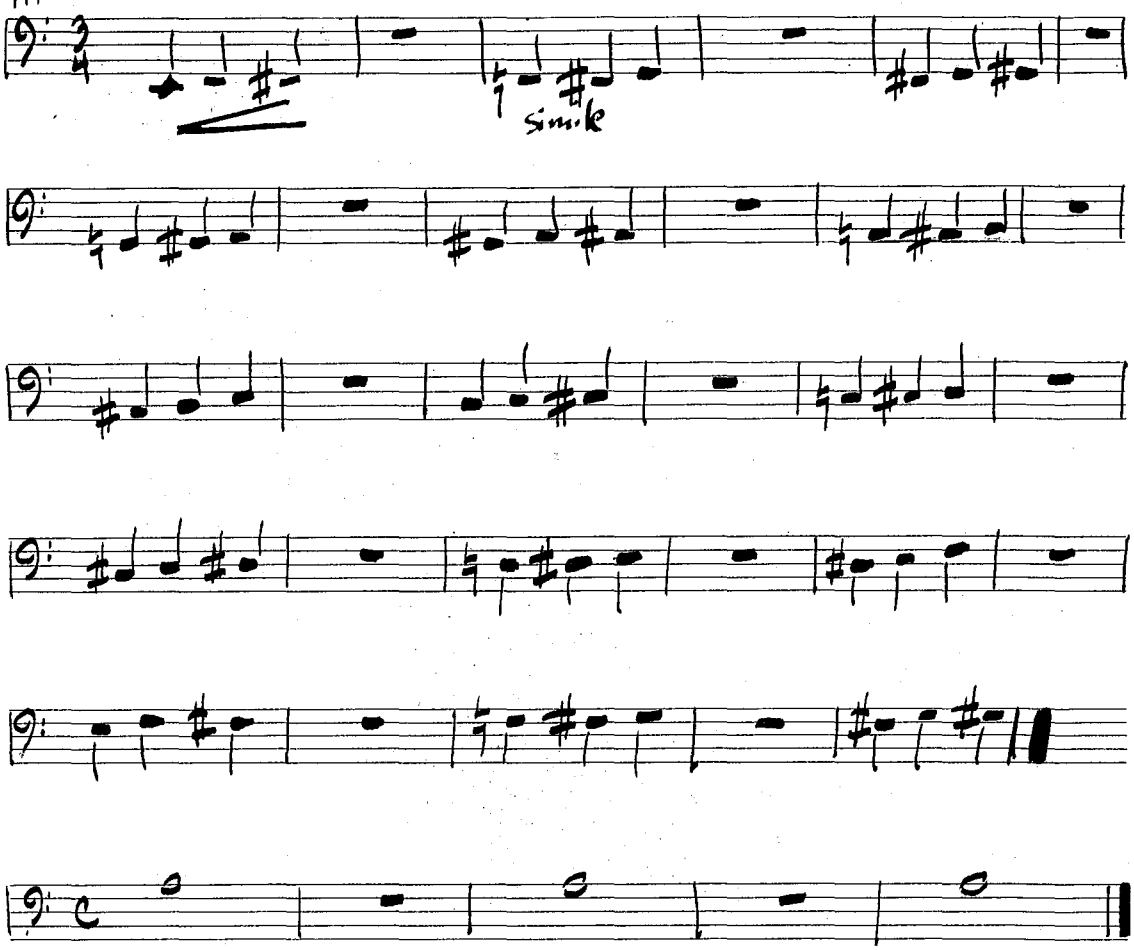
This procedure should be used whenever it is possible. It will require careful listening on the part of the player, because auxiliary positions generally need adjustment.

The first excercise

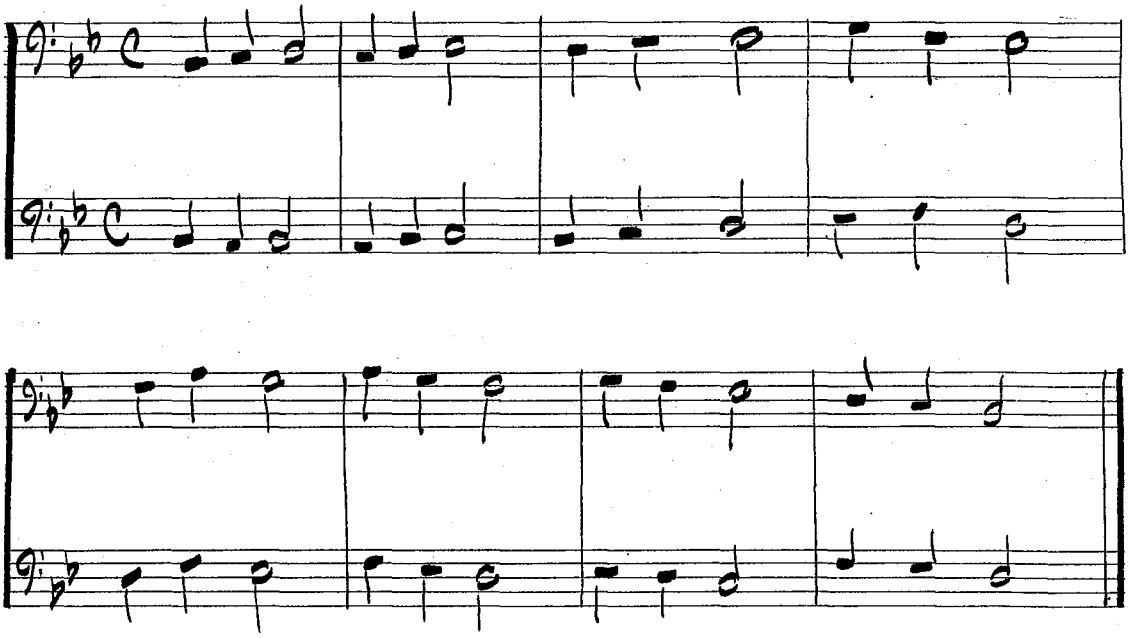



1
2
3
The first March

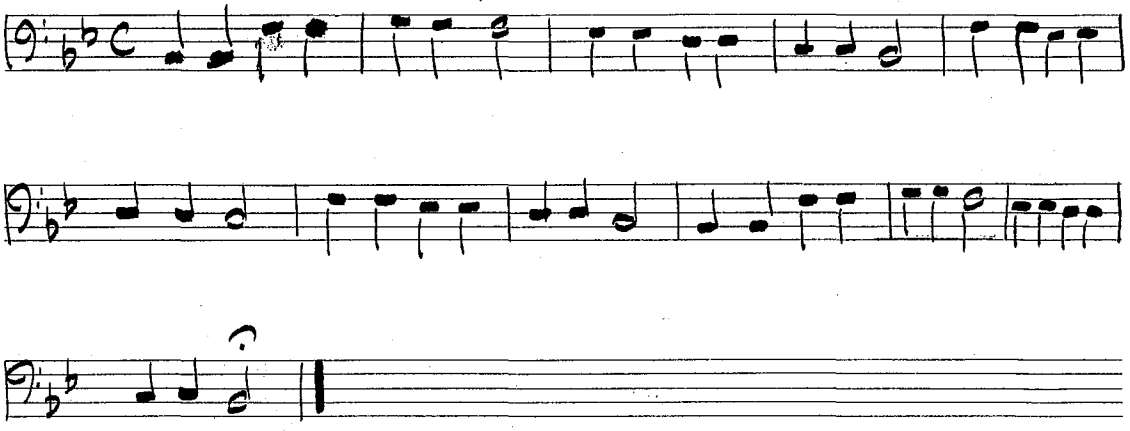

4
Trombone Solo
5



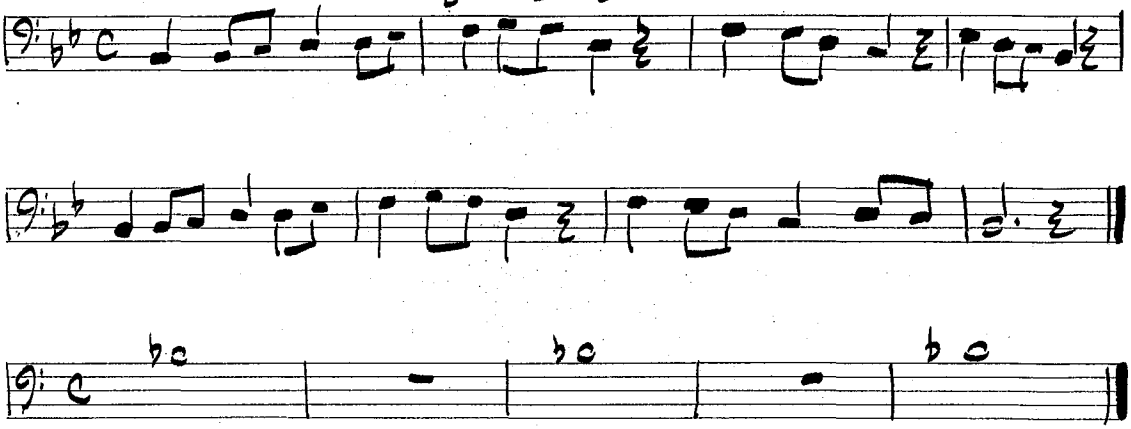
The First Duet



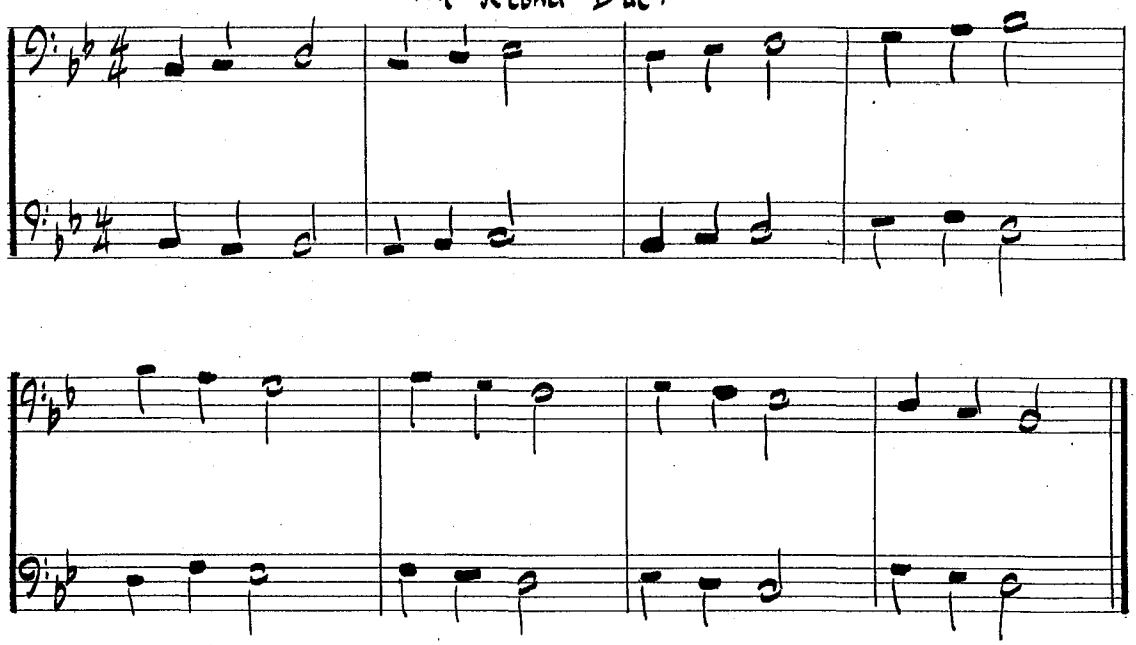
Twinkle, Twinkle, Little Star



Long, Long Ago



The Second Duet



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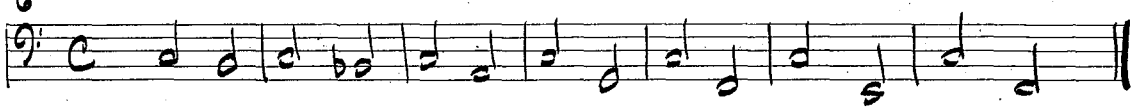

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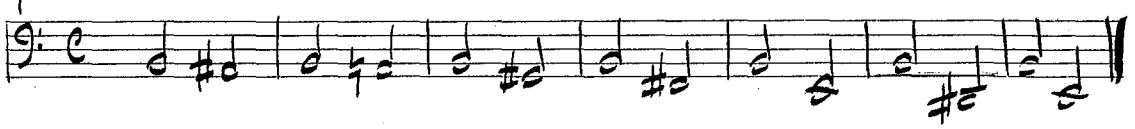
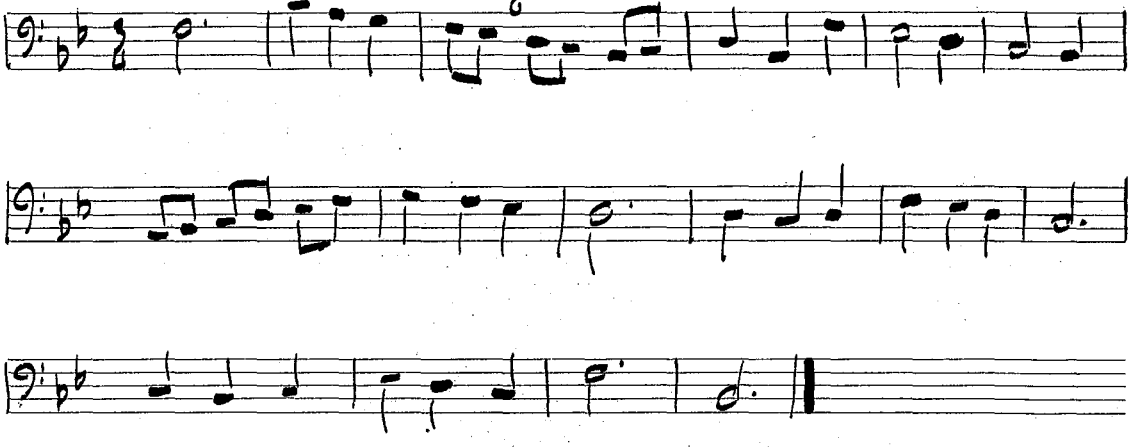
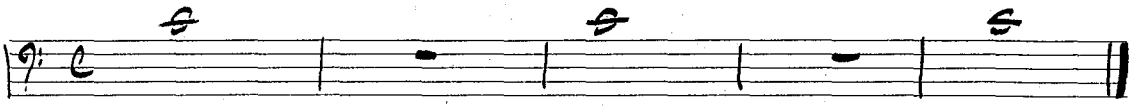
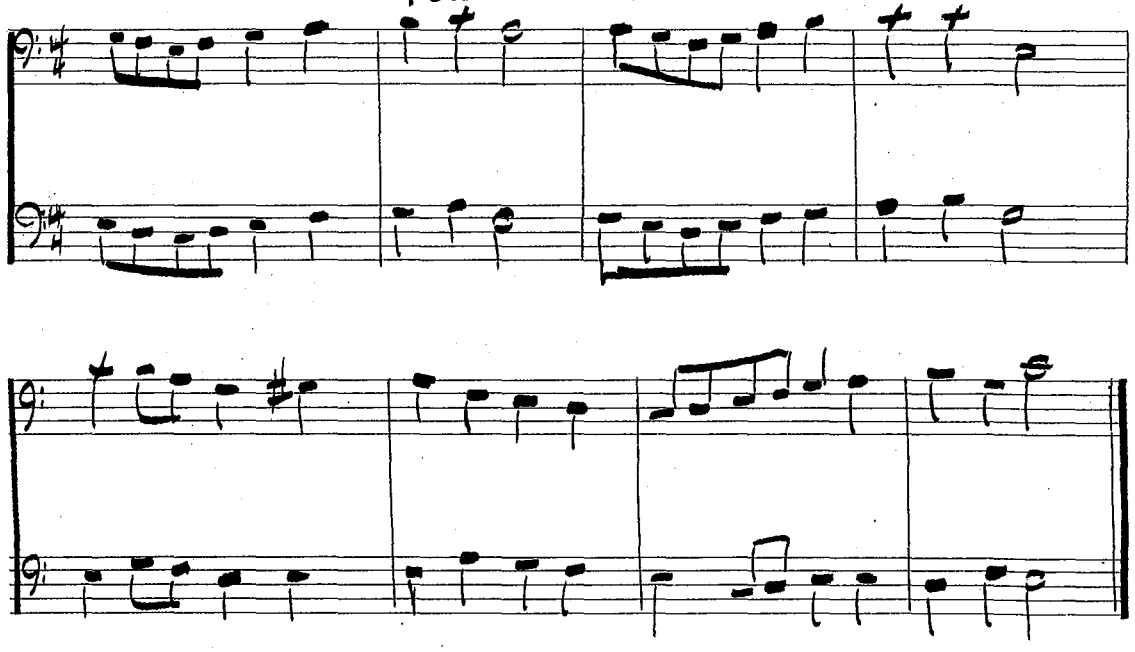


The Song in B♭

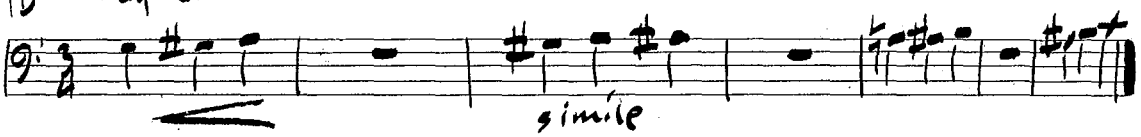




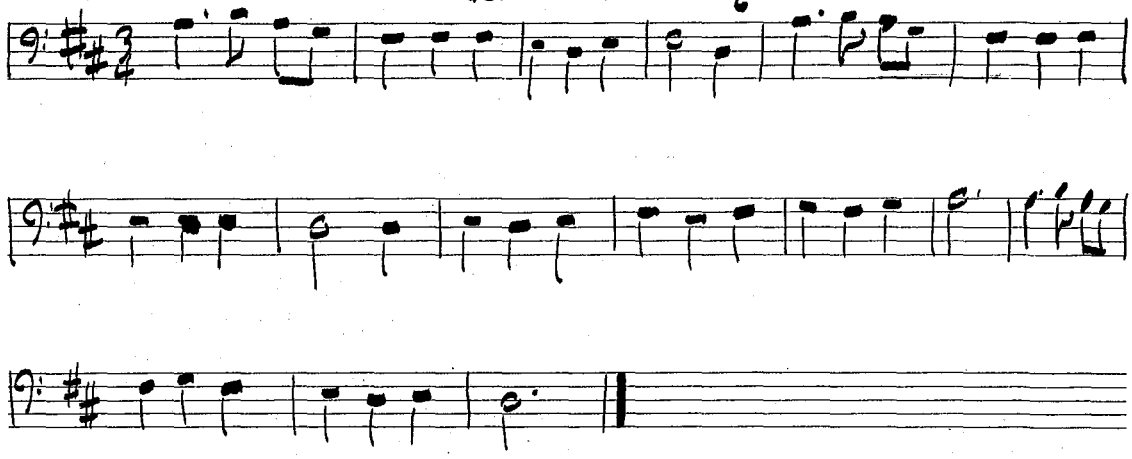
FOR TWO TROMBONES



1B Play excercise 1A and add these notes



German Folk Song



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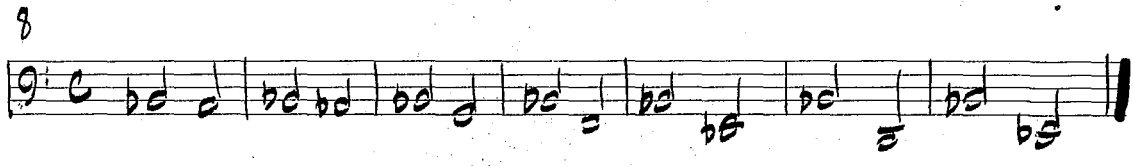
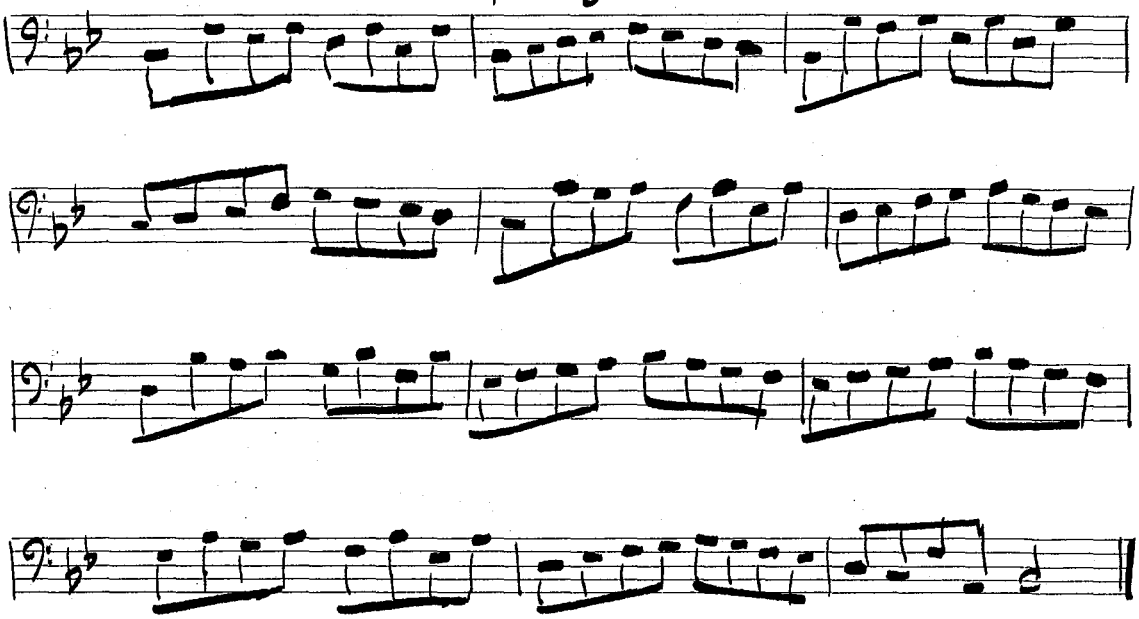
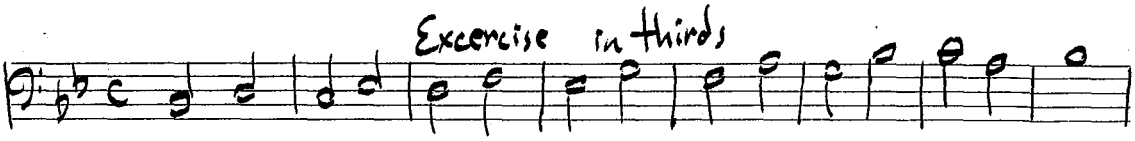
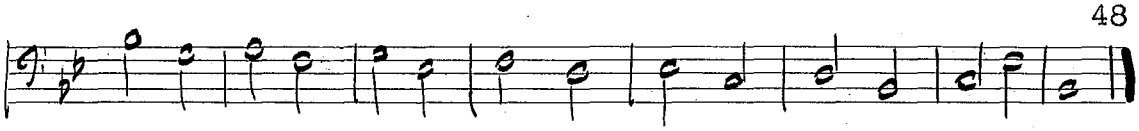


Study in eigth notes

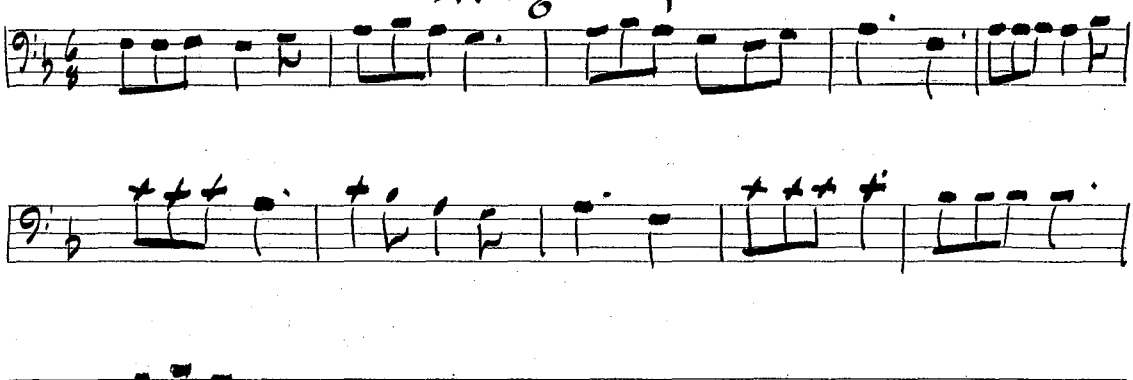


Excercise in thirds

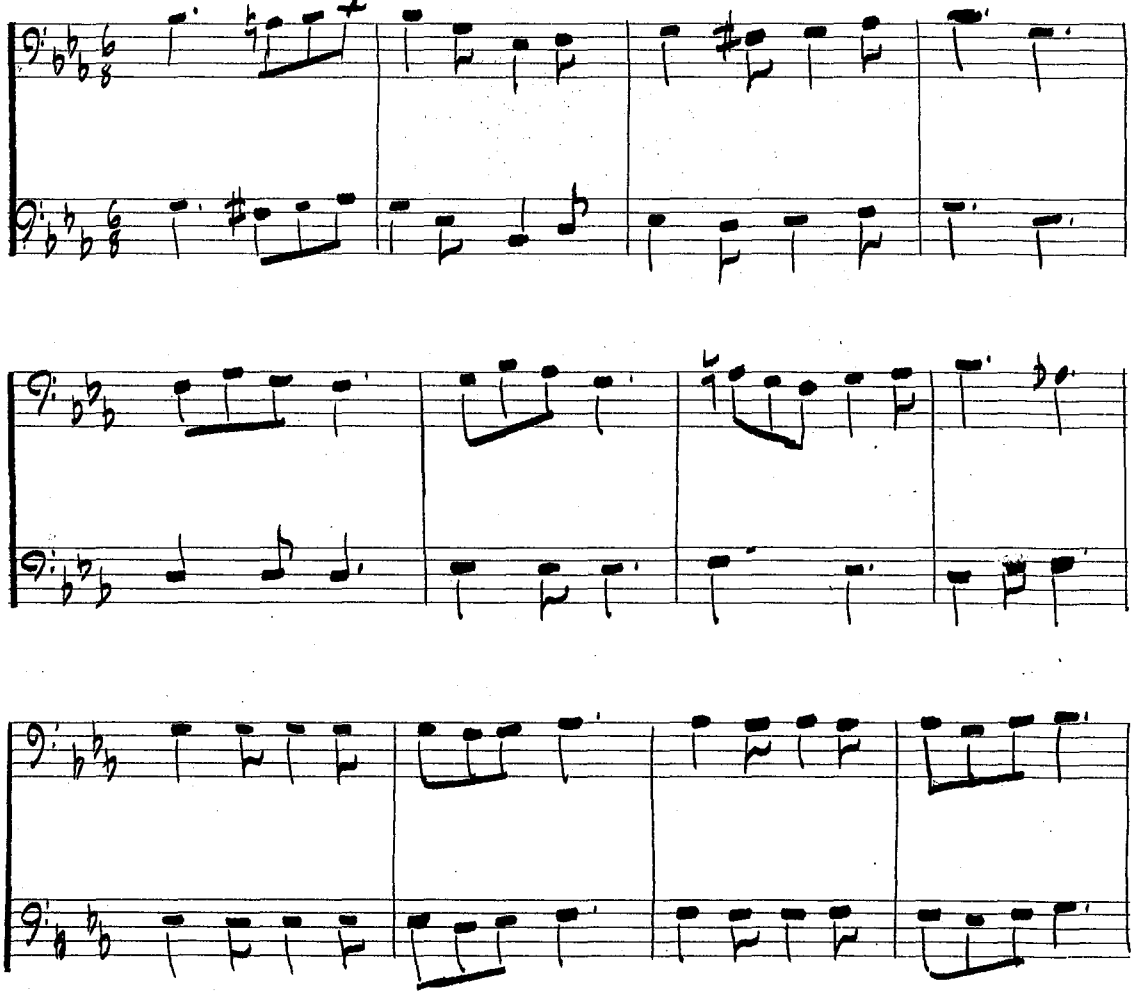


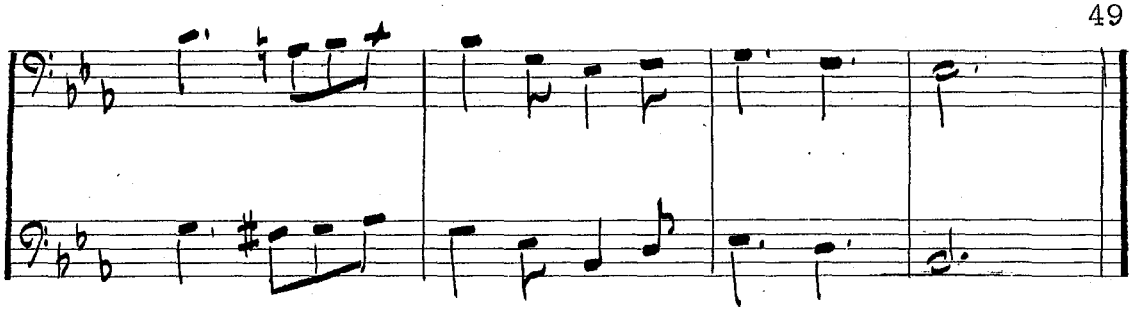


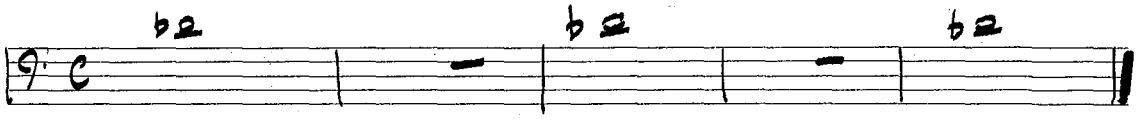
Six-eight rhythm



Duet in 6/8 Rhythm







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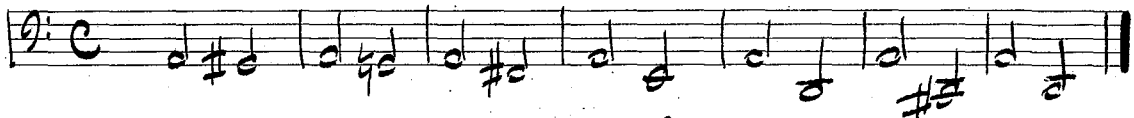
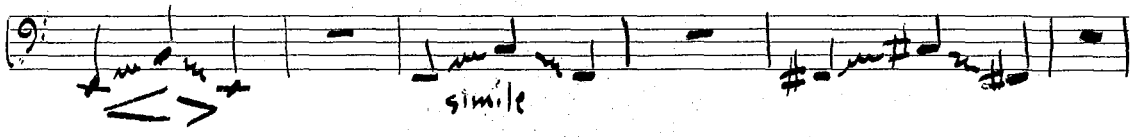
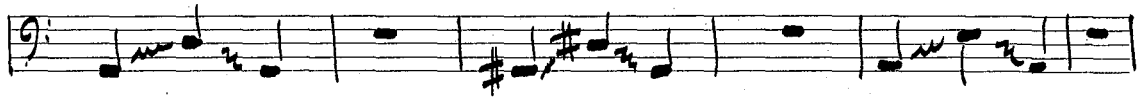
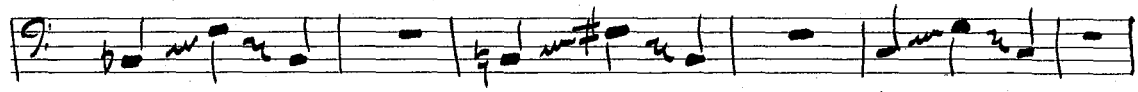
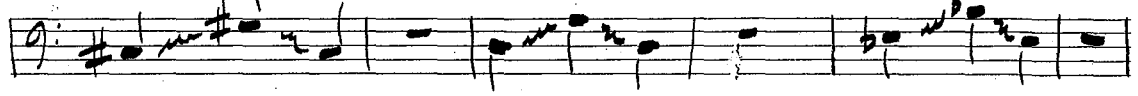


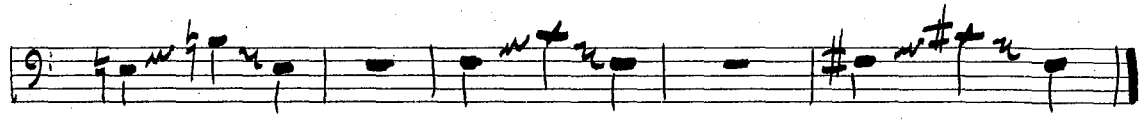
The Chromatic Scale



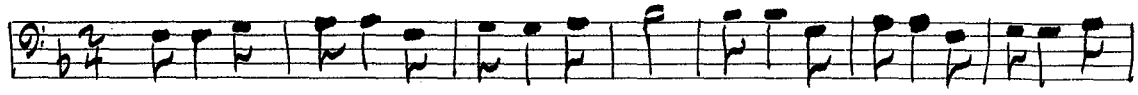


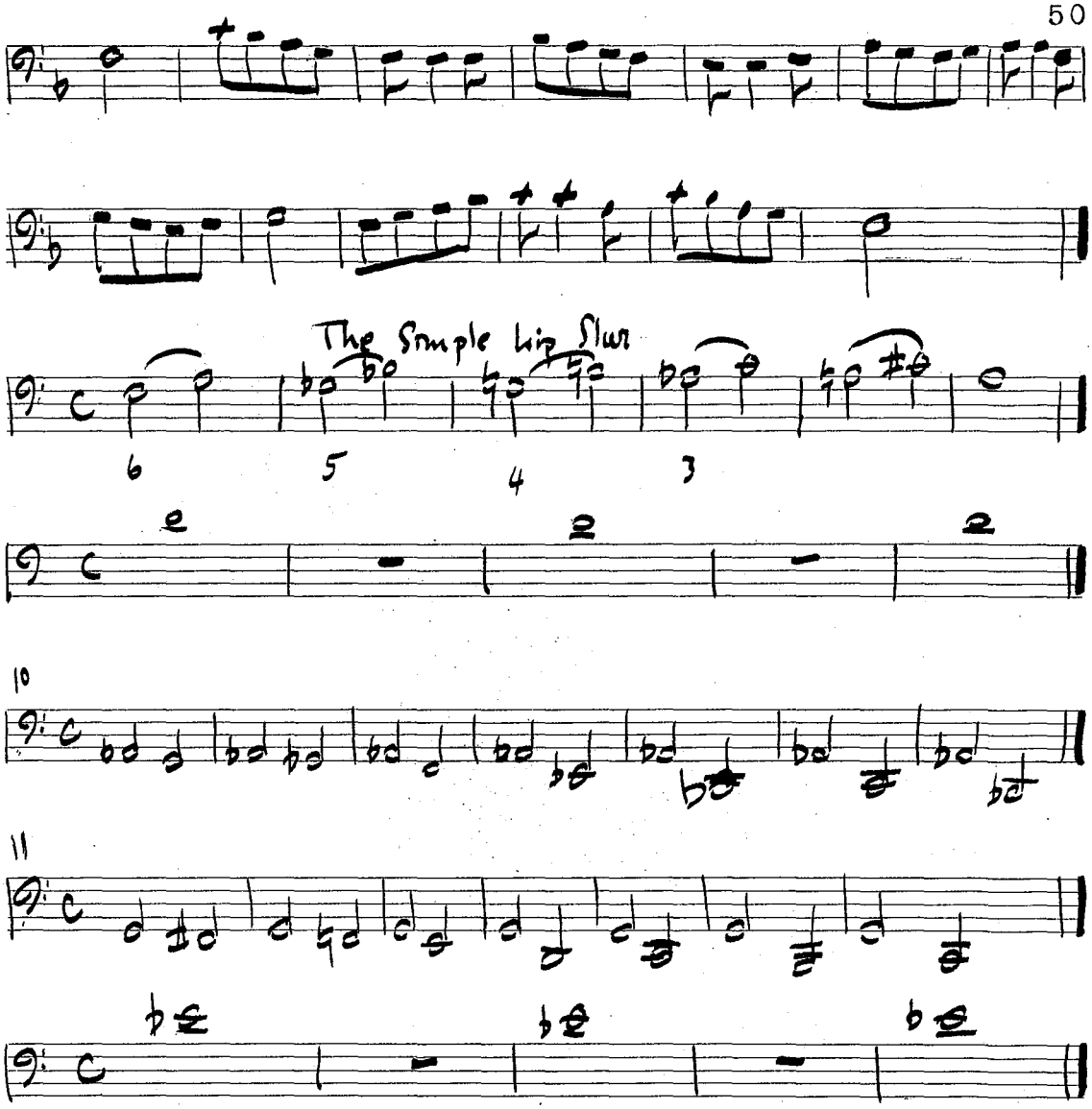






Study of Syncopation



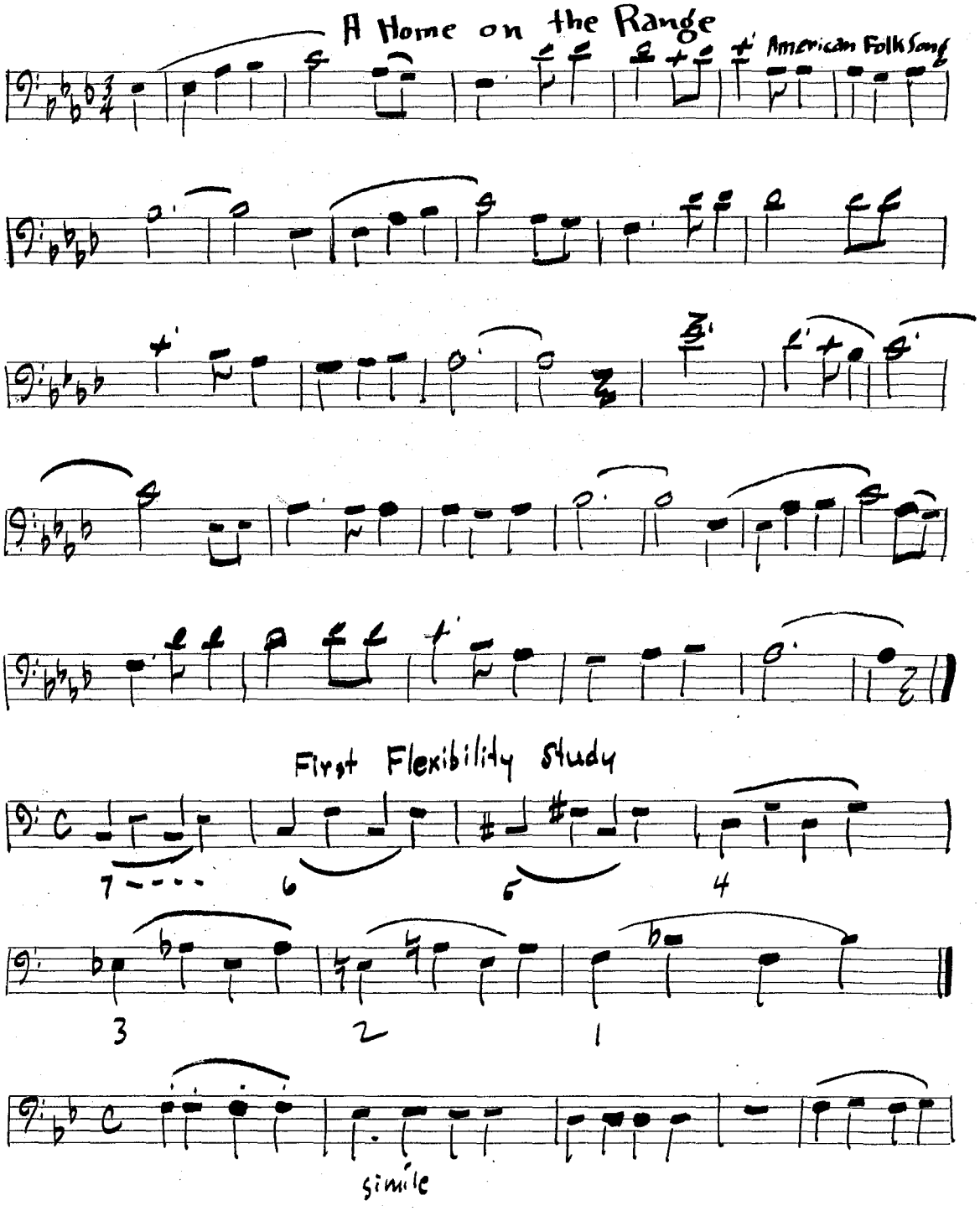


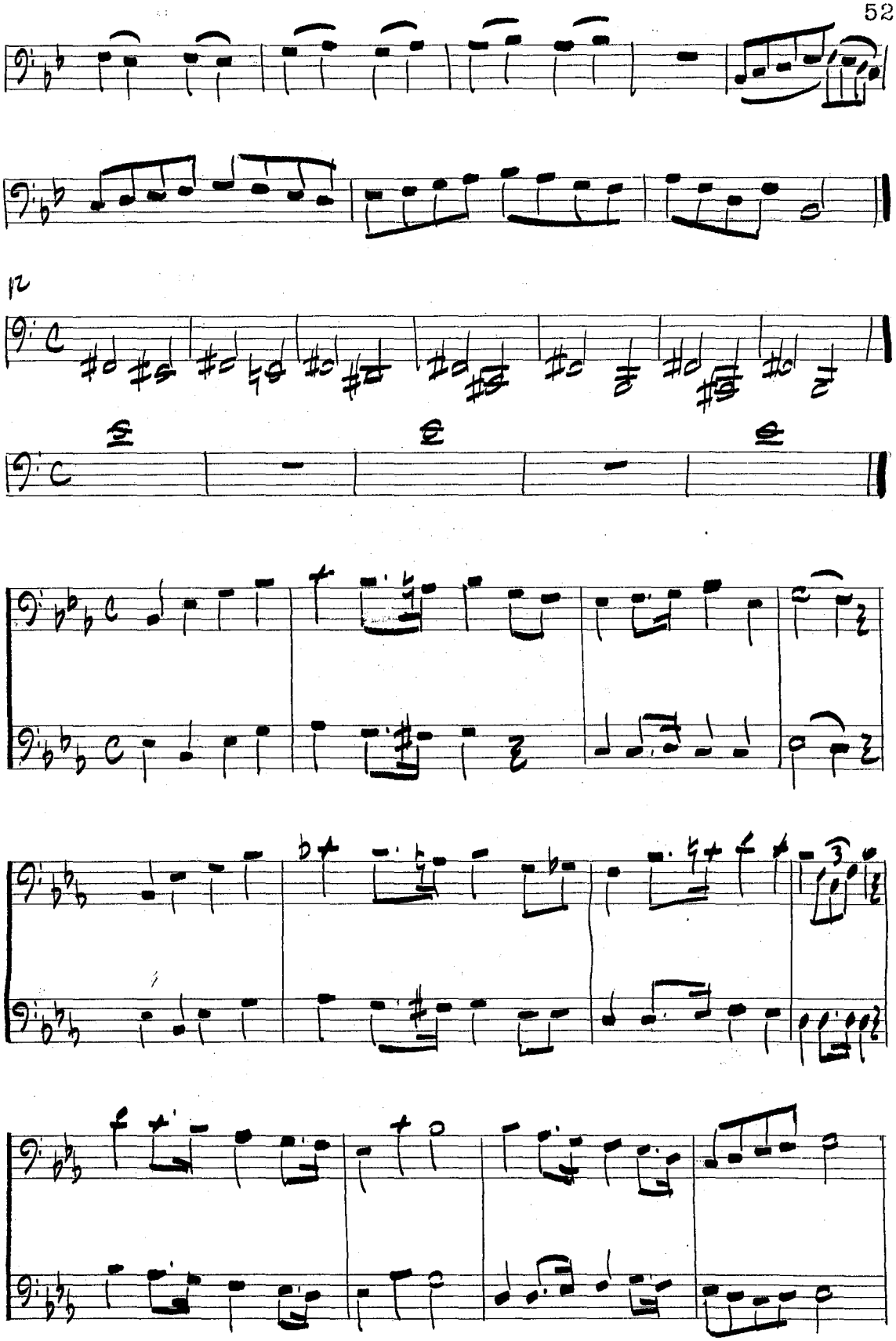
Producing the Slur

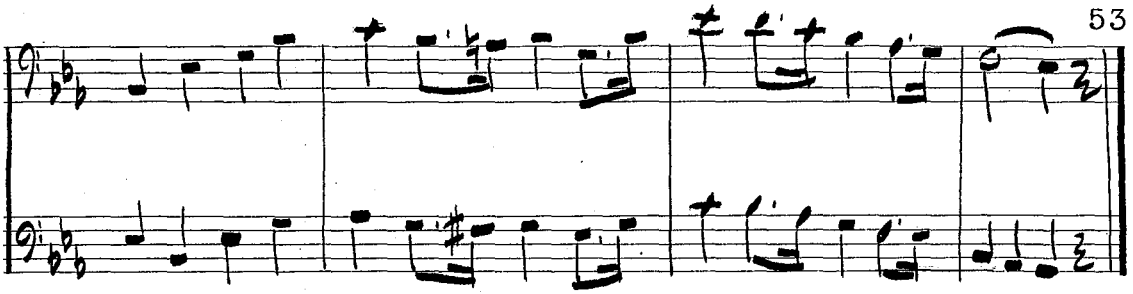
A true slur can only be executed when the slide moves in the opposite direction to the note, or if the slide remains stationary. An example of the former would be

slurring from middle B to middle C. The slide moves out as the note progresses upward. In all cases where the slide moves in the same direction, the slur is executed with the

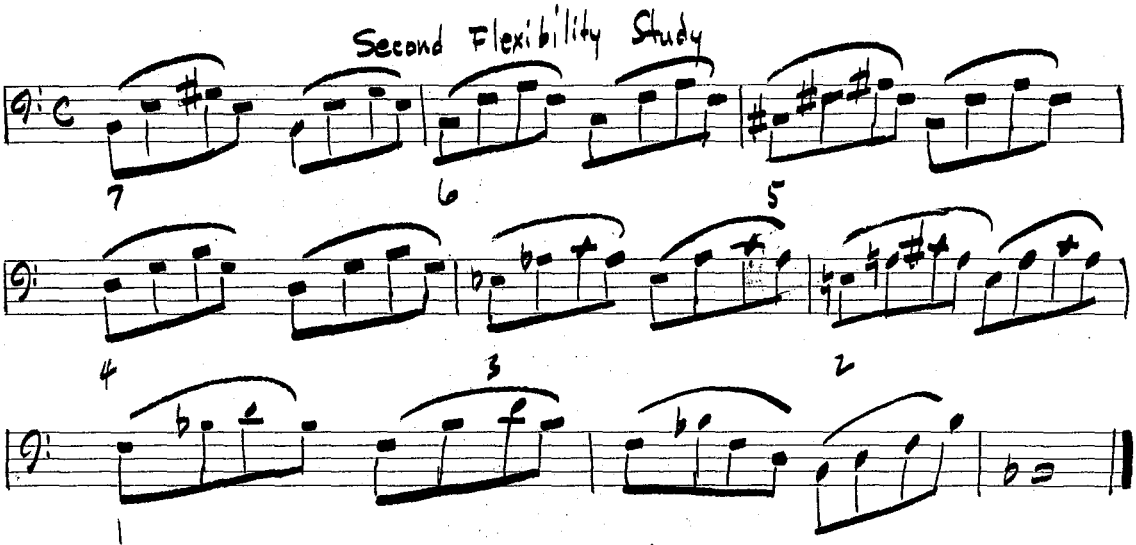
aid of a very legato tongue. The action of the tongue must not be strong enough to completely stop the air column. If the tongue were completely eliminated the result would be a glissando.



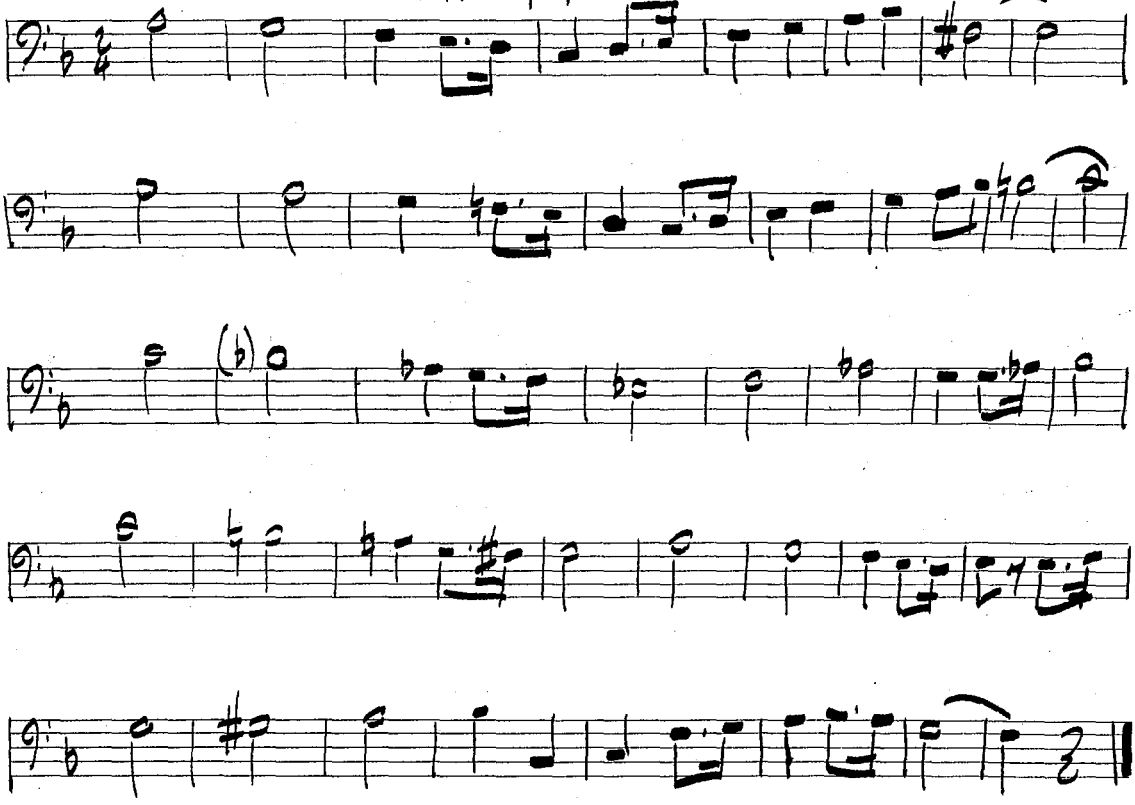


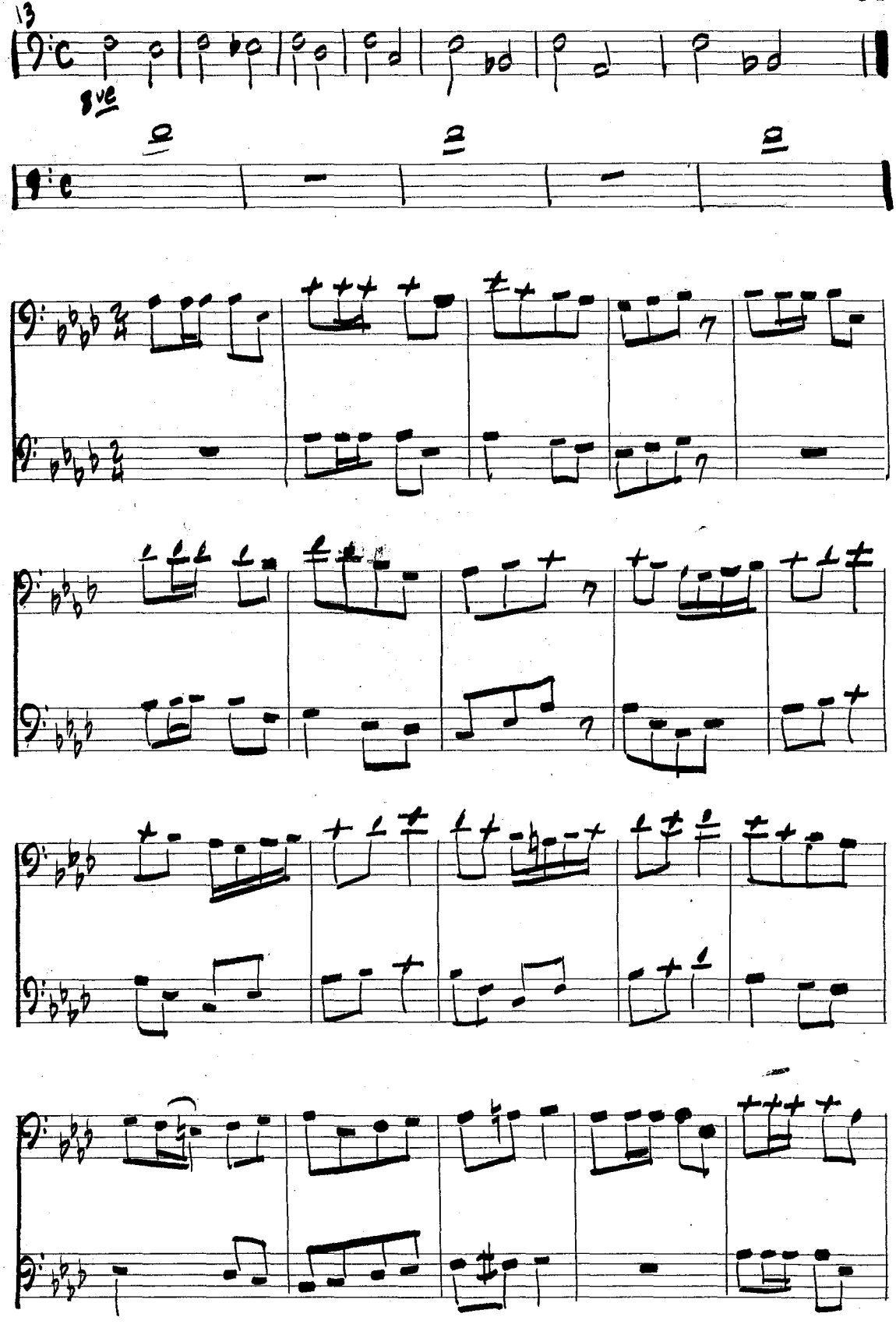


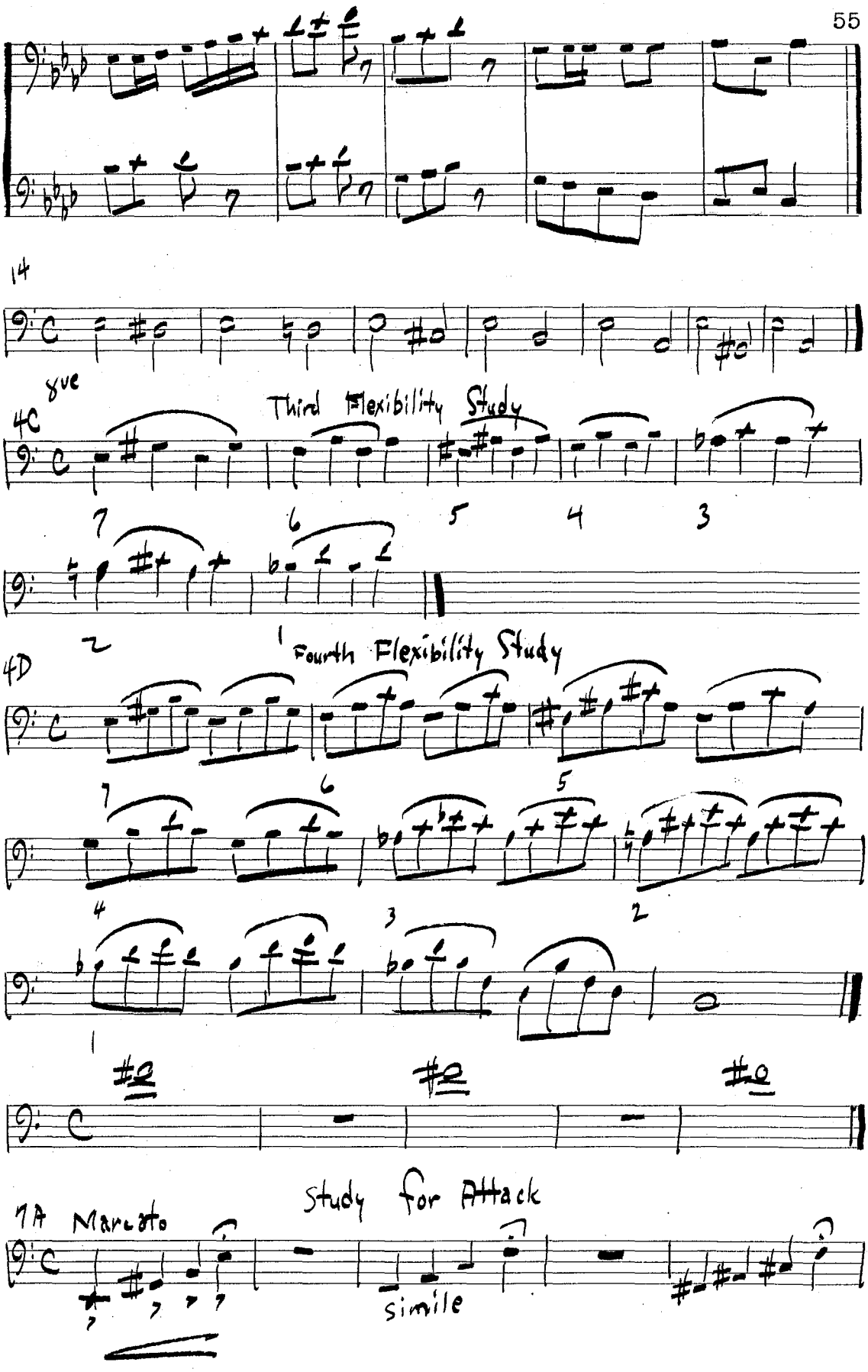
Second Flexibility Study

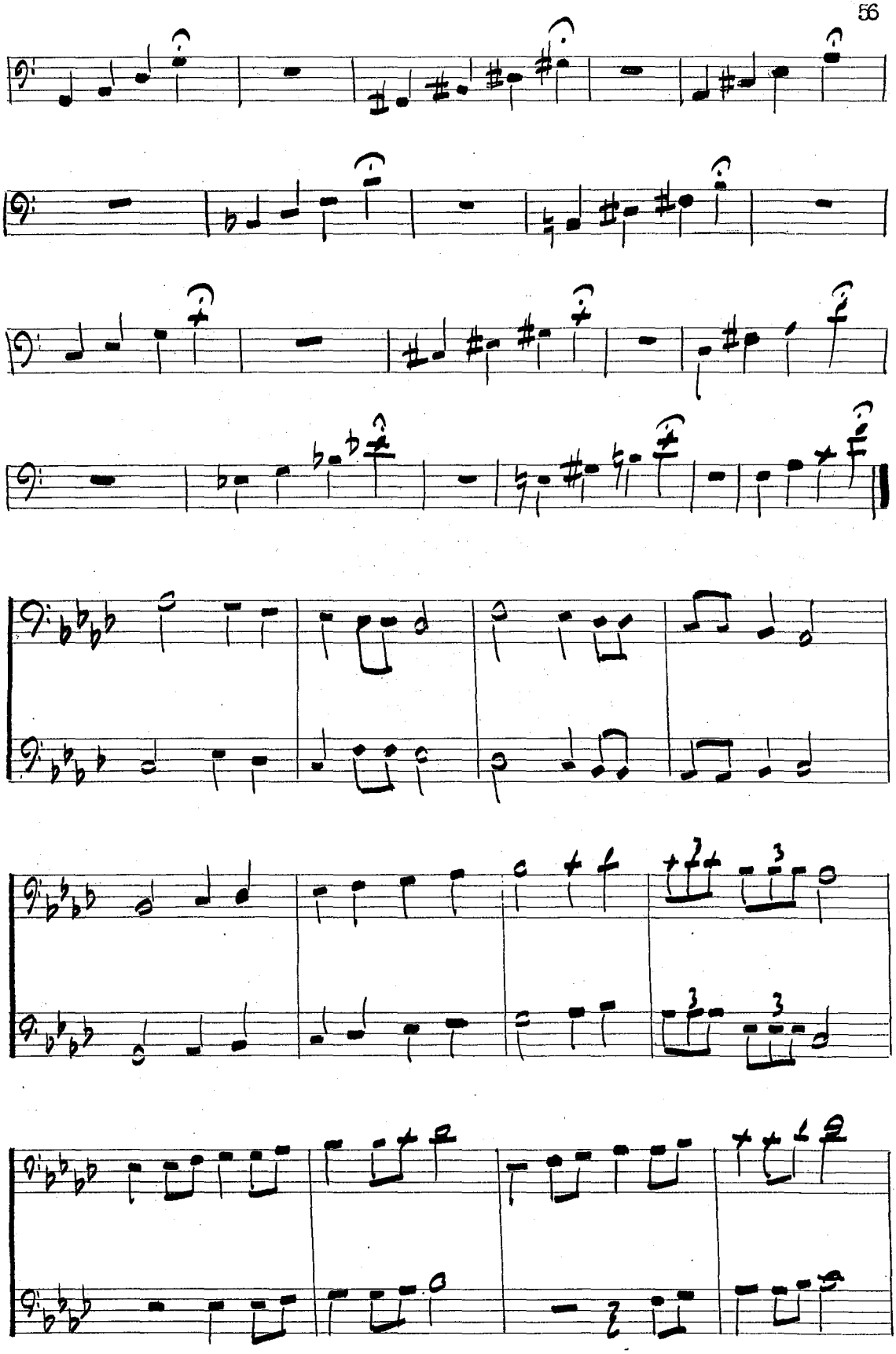


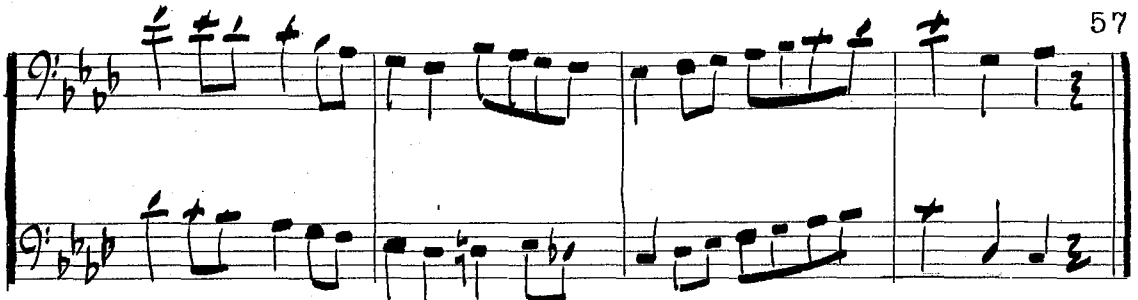
Military March




13
8va

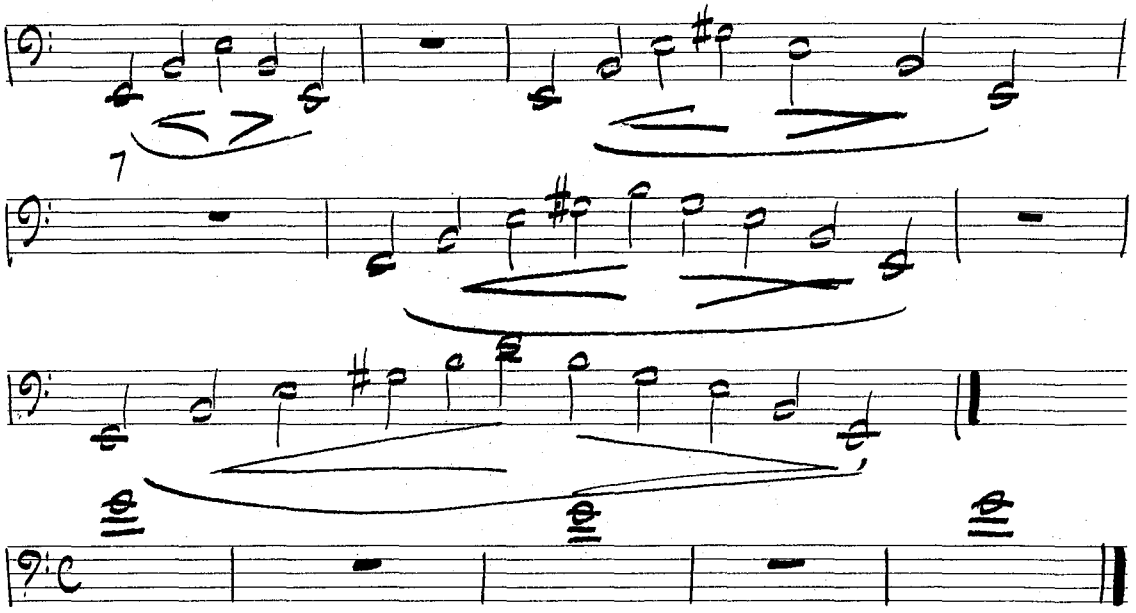

14
8ve
4C
Third Flexibility Study
4D
Fourth Flexibility Study
7A Marcato
Study for Attack
simile



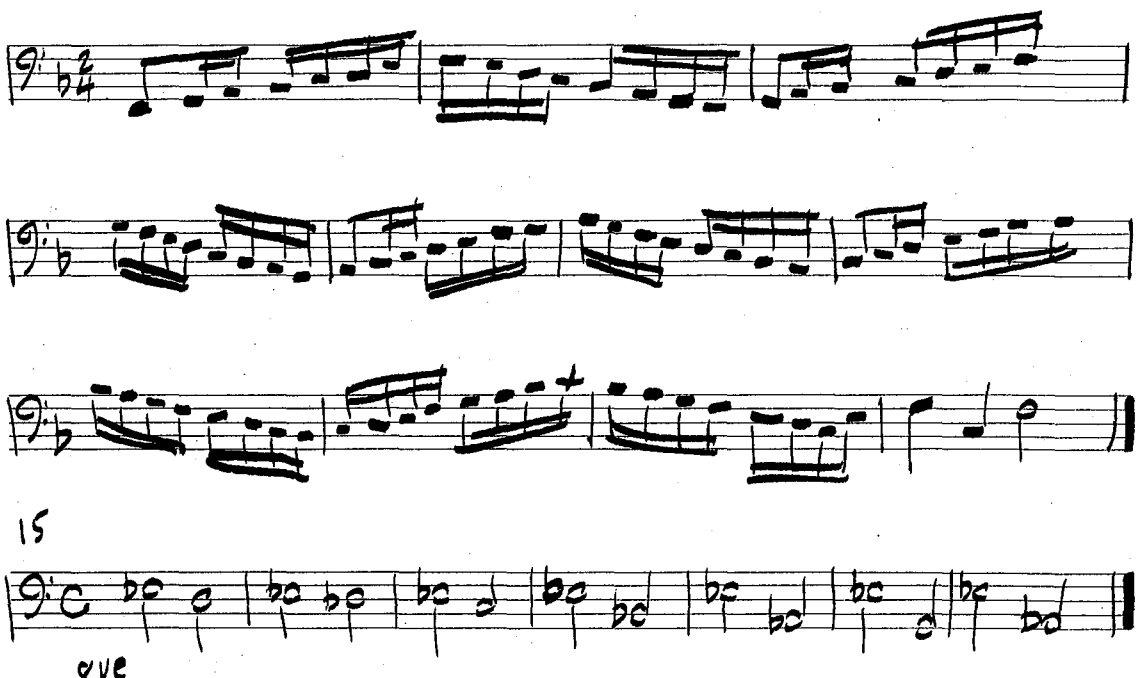


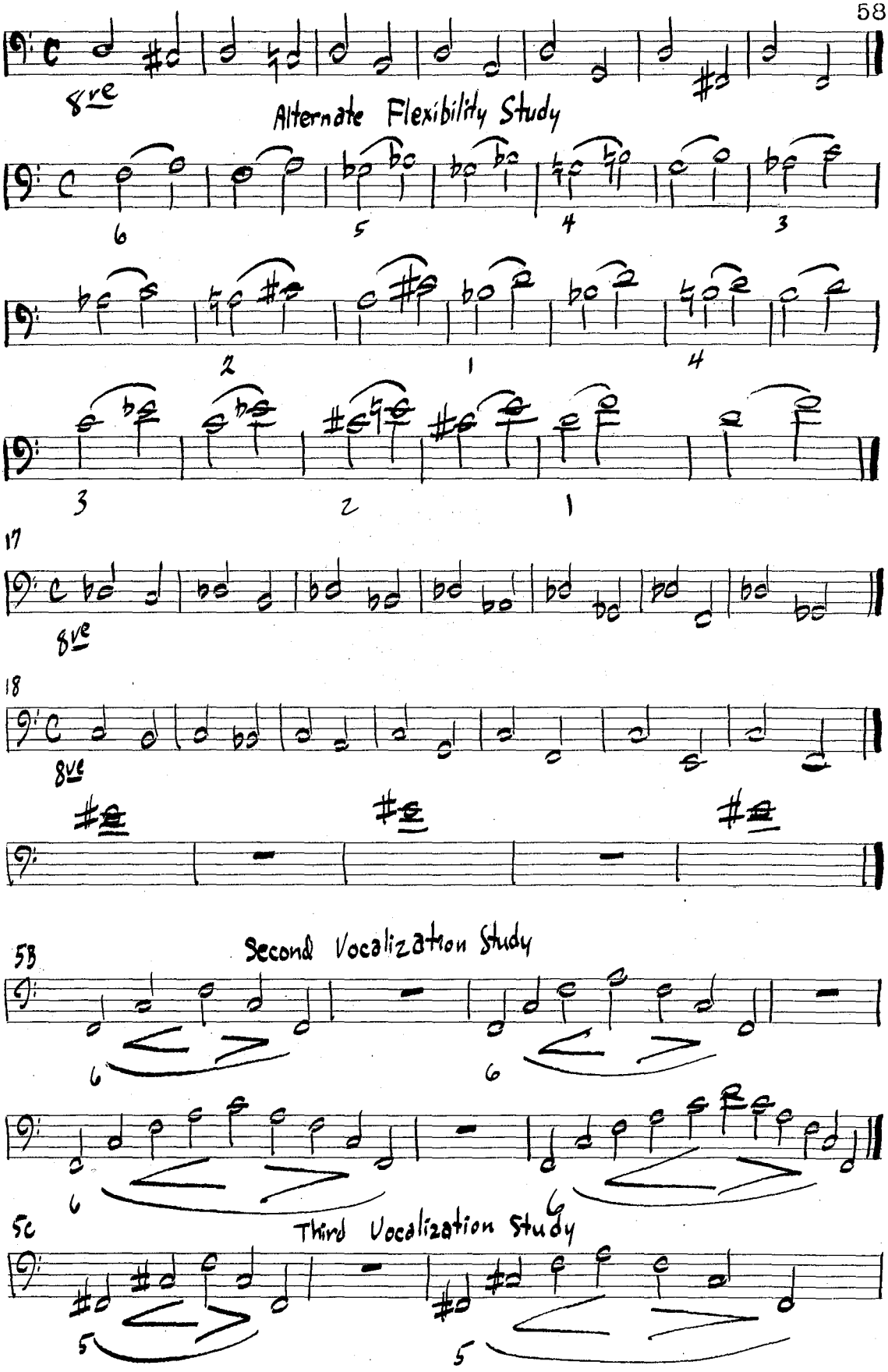
57

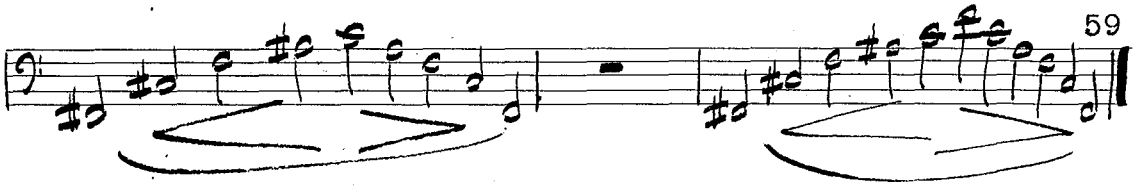
First Vocalization Study



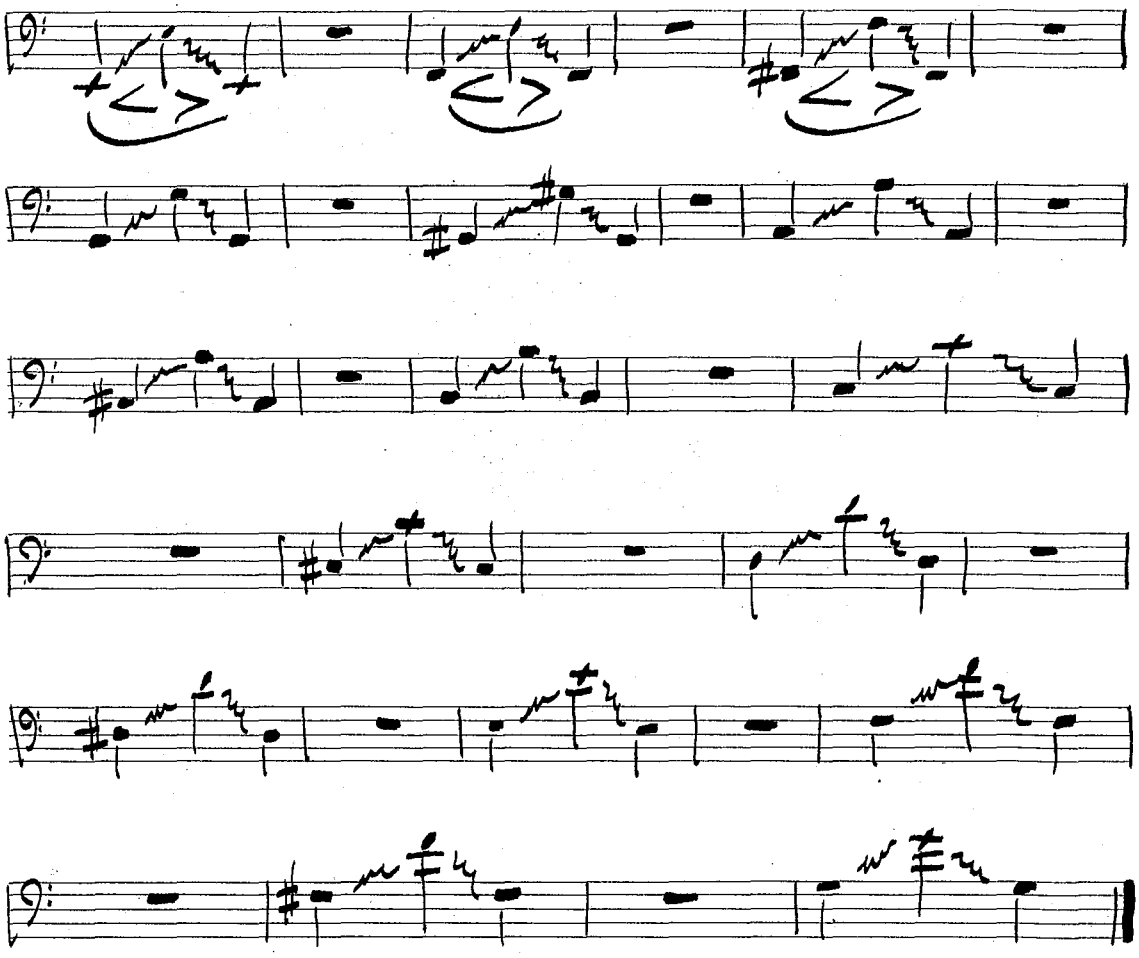
The F Scale



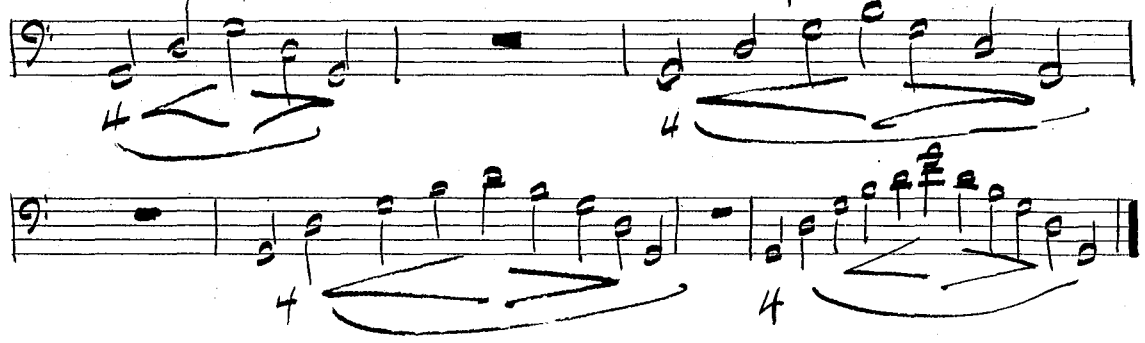

8ve
Alternate Flexibility Study
17
18
Second Vocalization Study
Third Vocalization Study

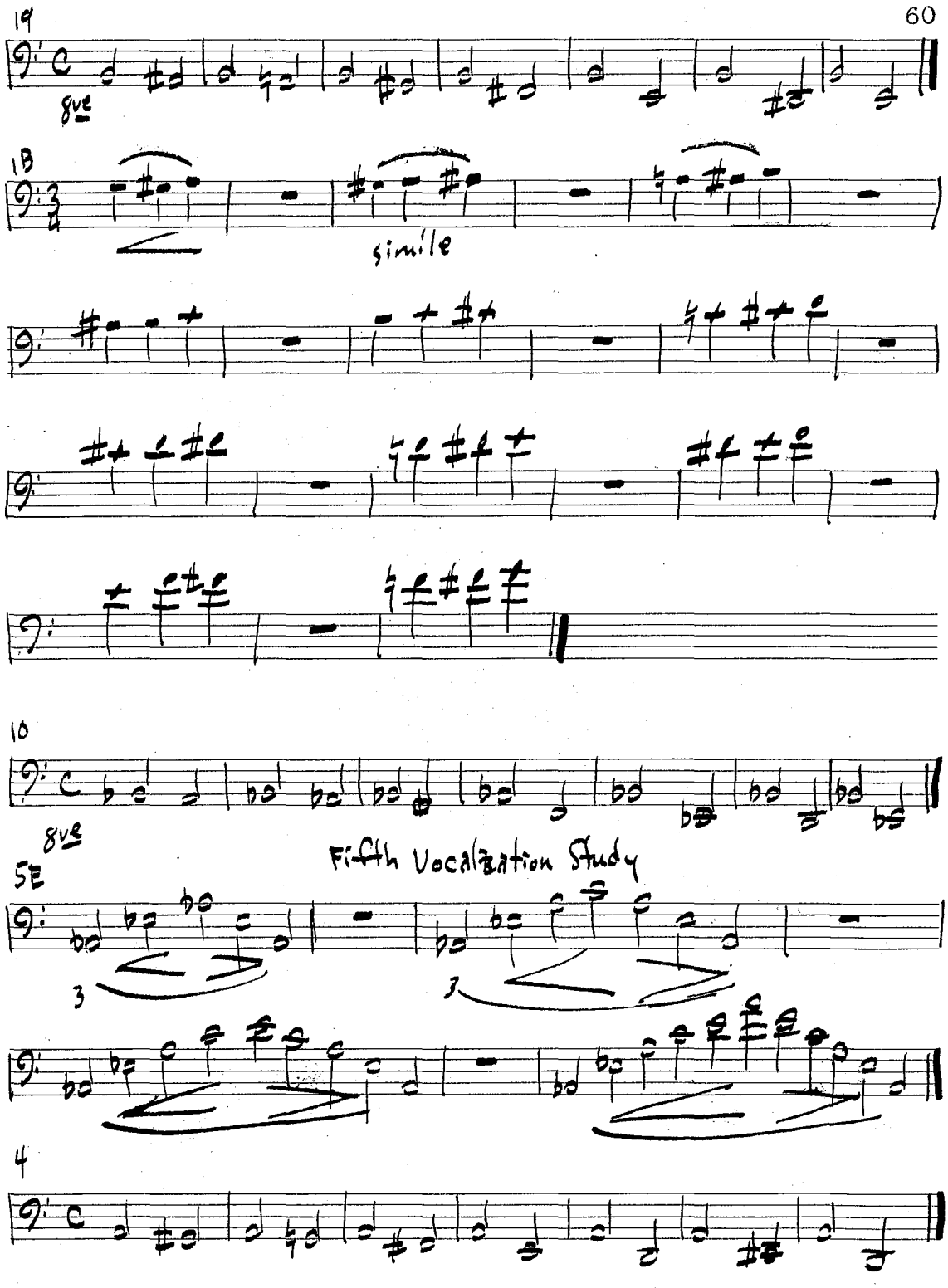


The Chromatic Scale in One Octave



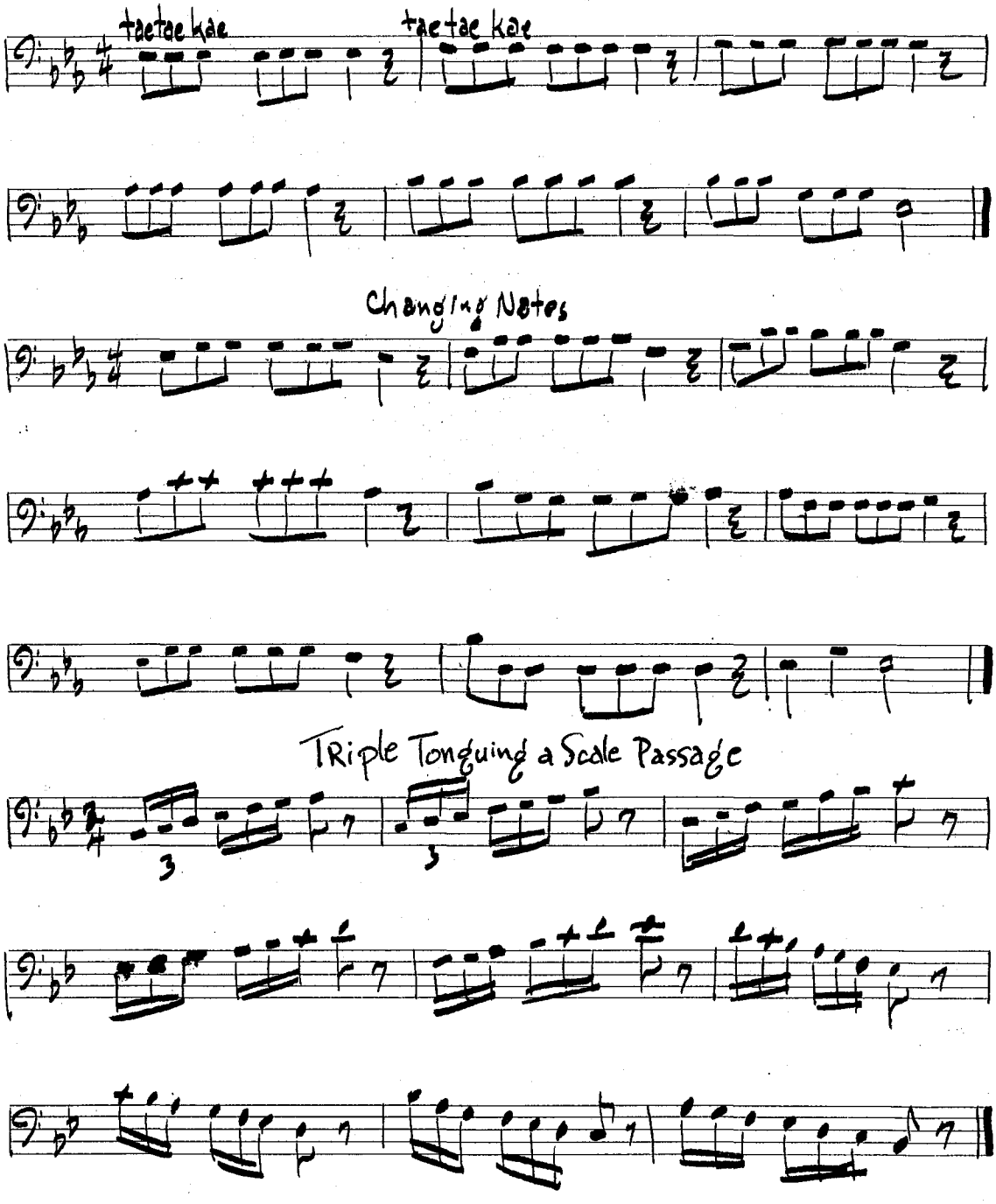
Fourth Vocalization Study



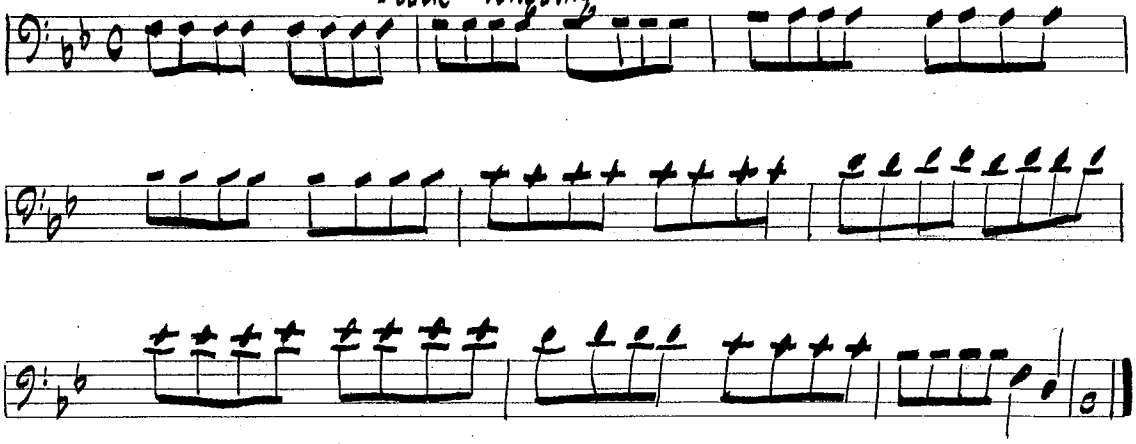

19
8va
1B
simile
10
8va
5E
Fifth Vocalization Study
3
3
4

Triple Tonguing

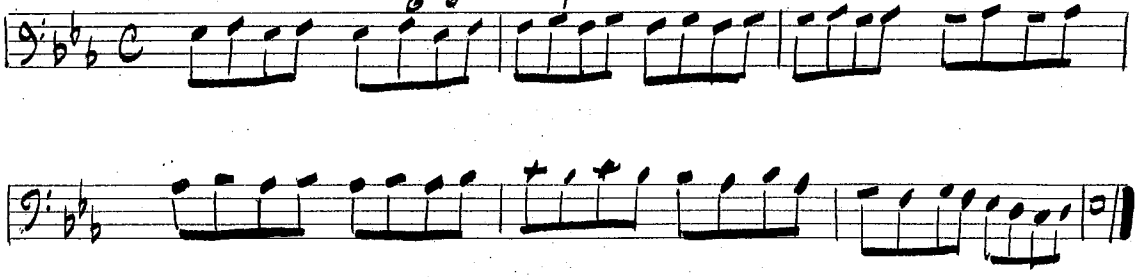
The mechanics of triple tonguing for the trombone are the same as those used for the trumpet. Be sure to vocalize with the proper syllables. The beginner should spend a great deal of time practicing tonguing without music. This will allow more careful listening.



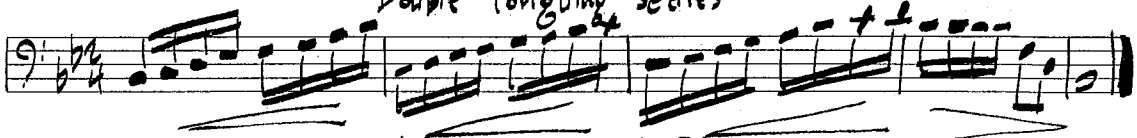
Double Tonguing



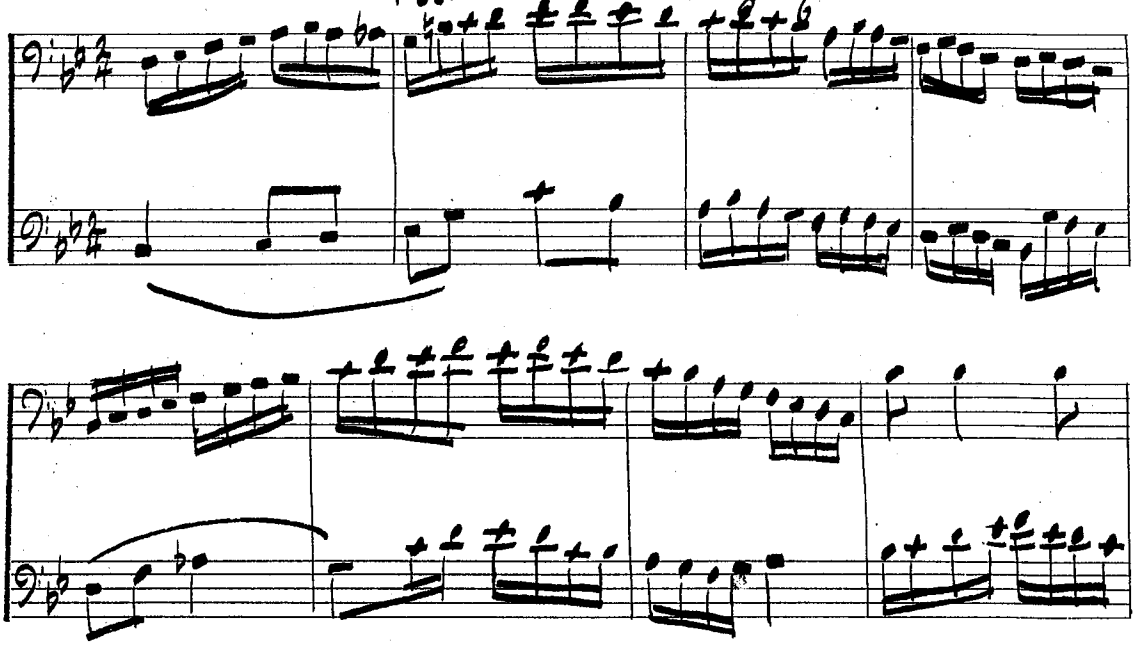
Changing the syllable for each note

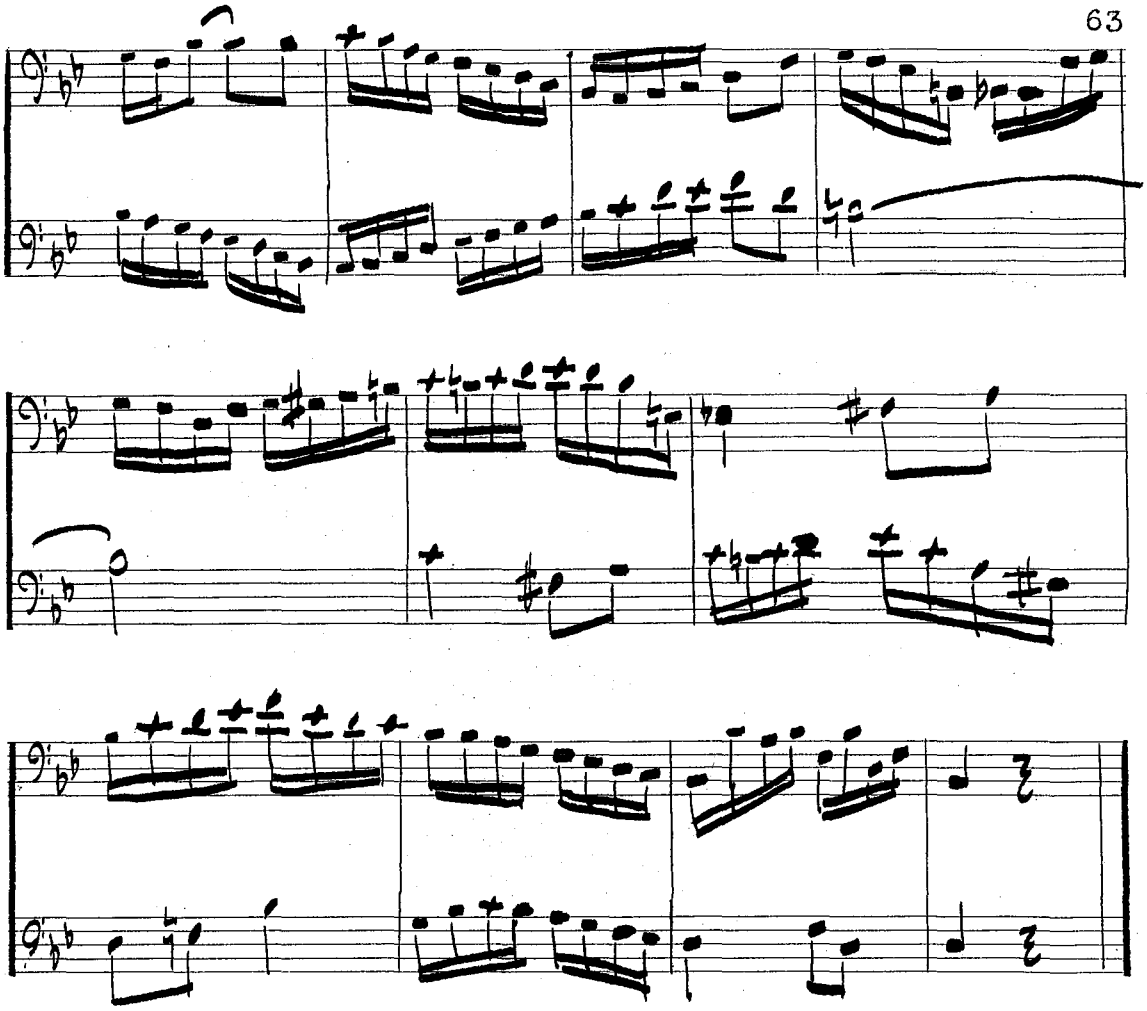


Double Tonguing Scales

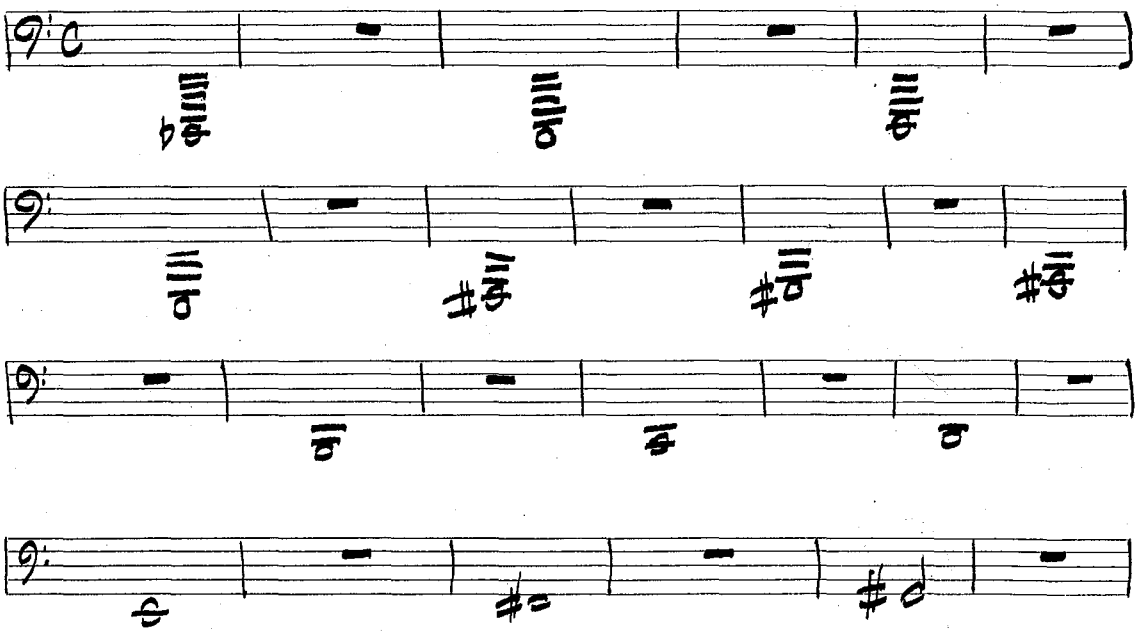


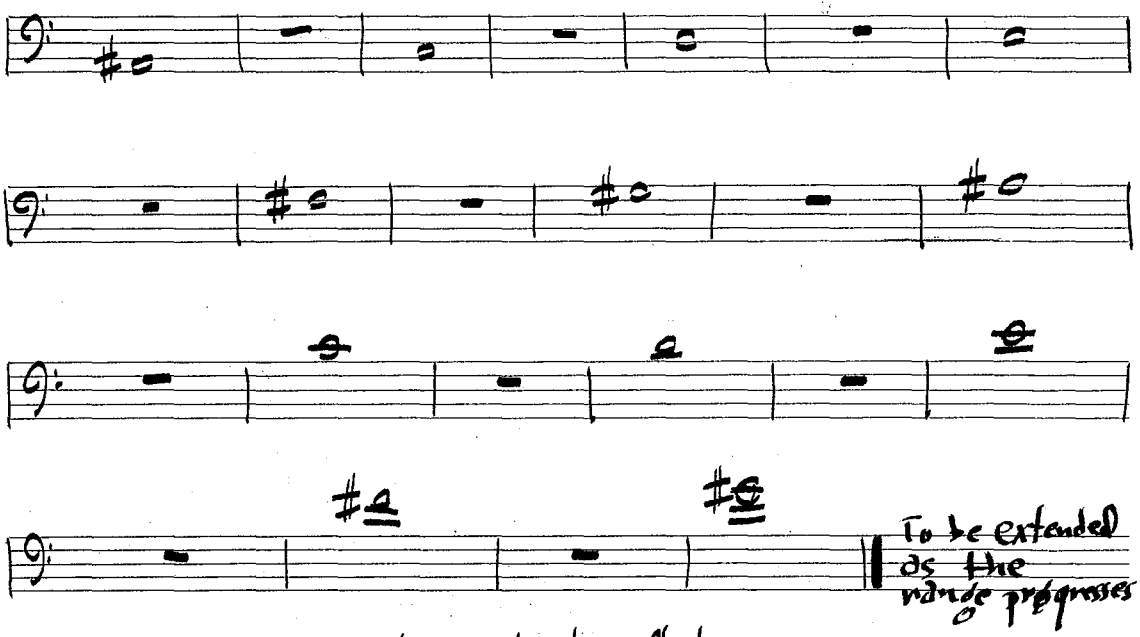
Duet for Double Tonguing



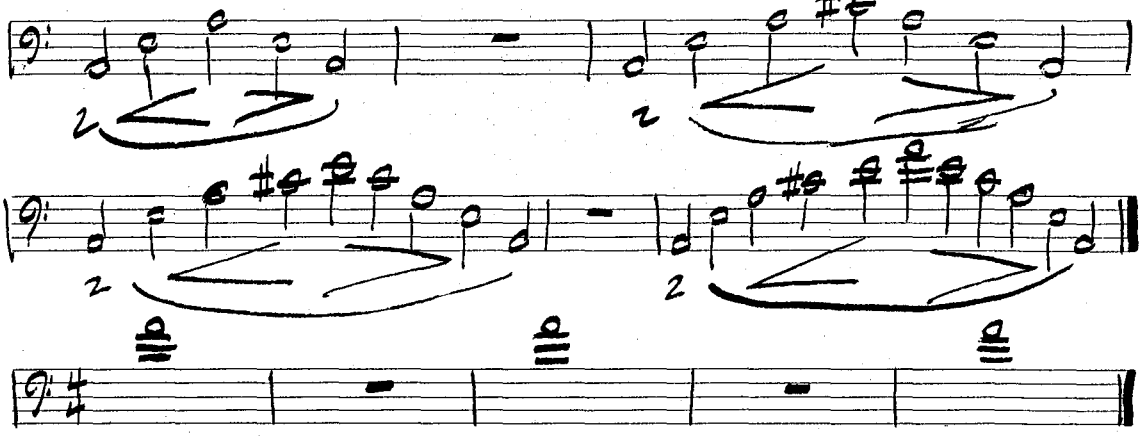


The whole-tone Scale

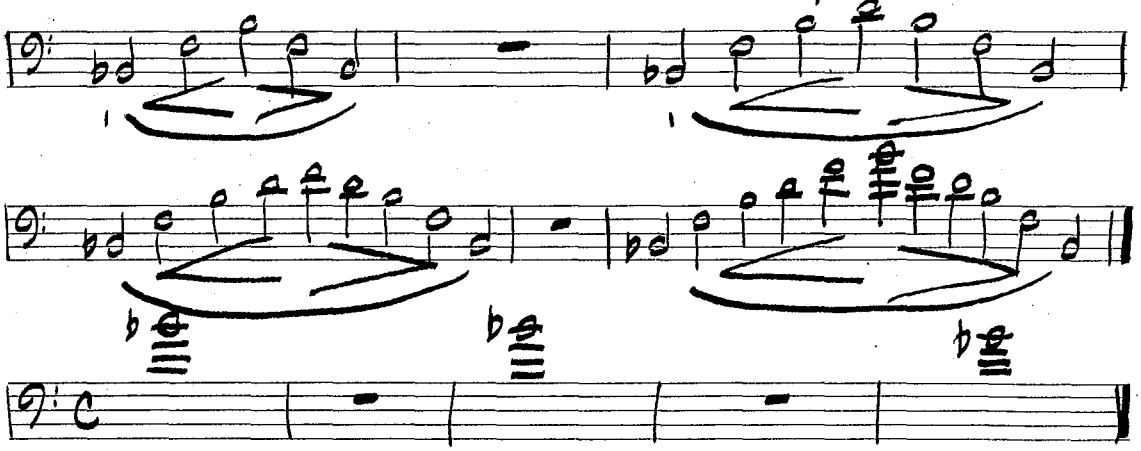


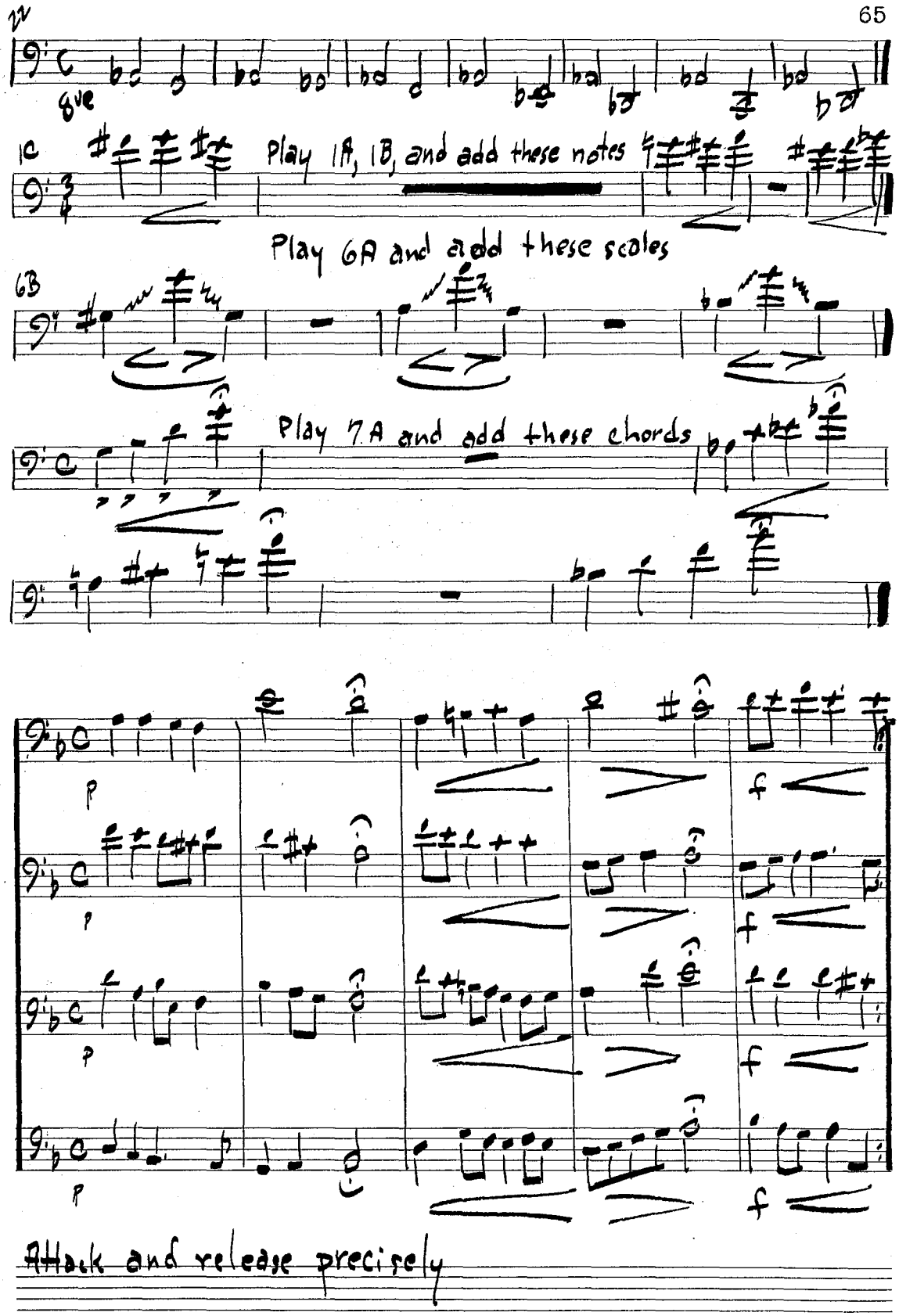


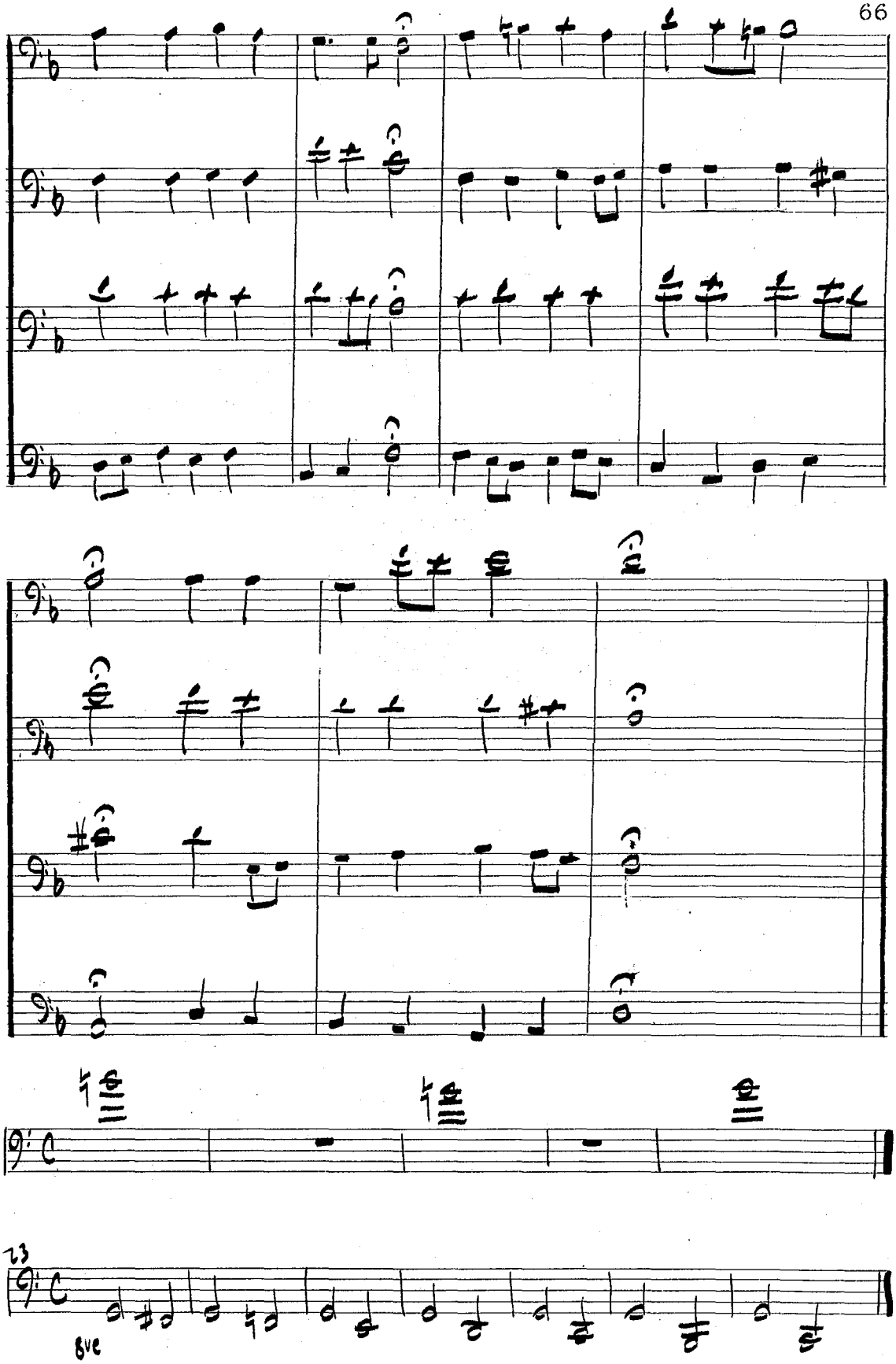
Sixth Vocalization Study



Seventh Vocalization Study

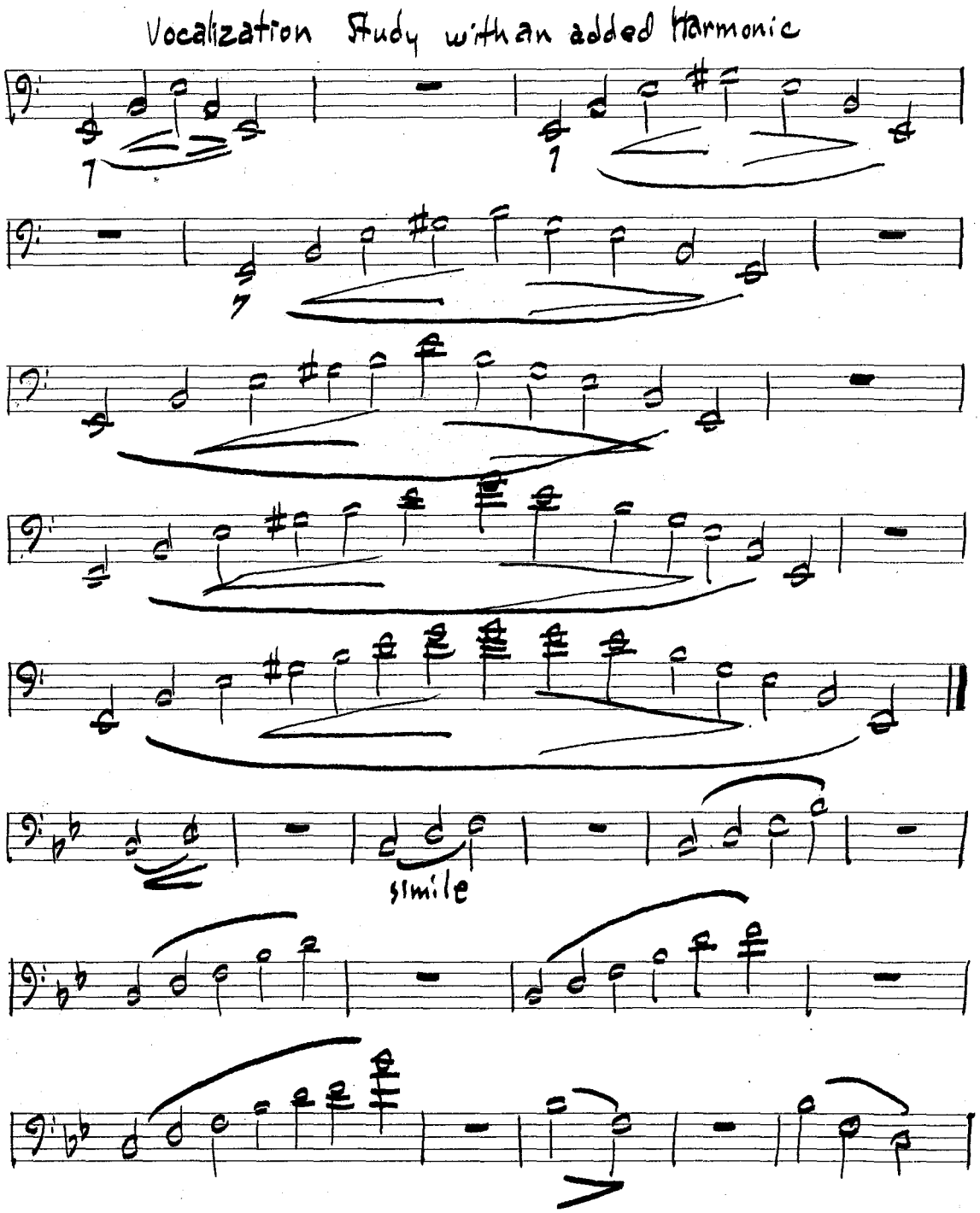


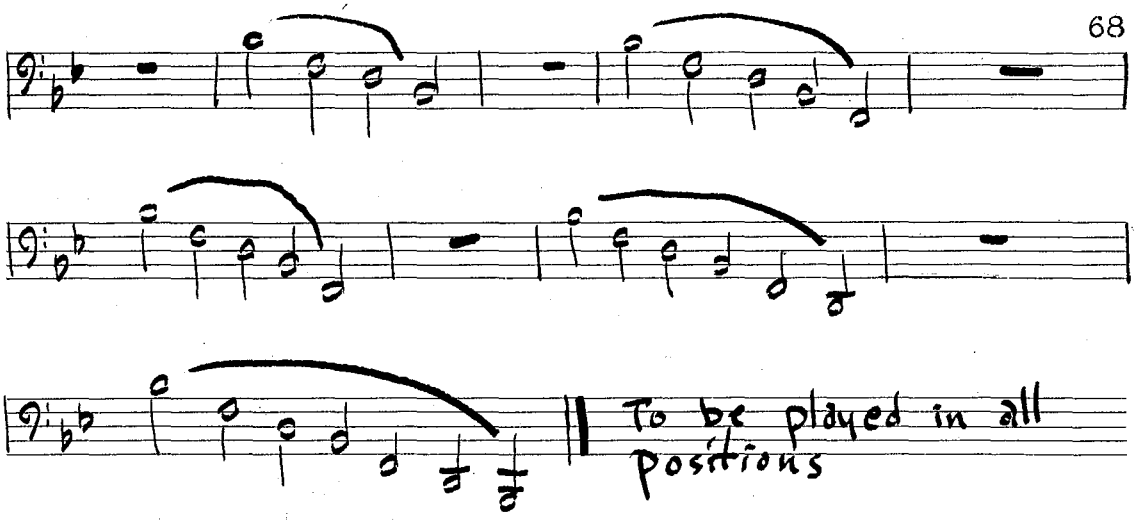

8va
1A
Play 1A, 1B, and add these notes
1B
Play 6A and add these scales
6B
Play 7A and add these chords
Attack and release precisely


8va

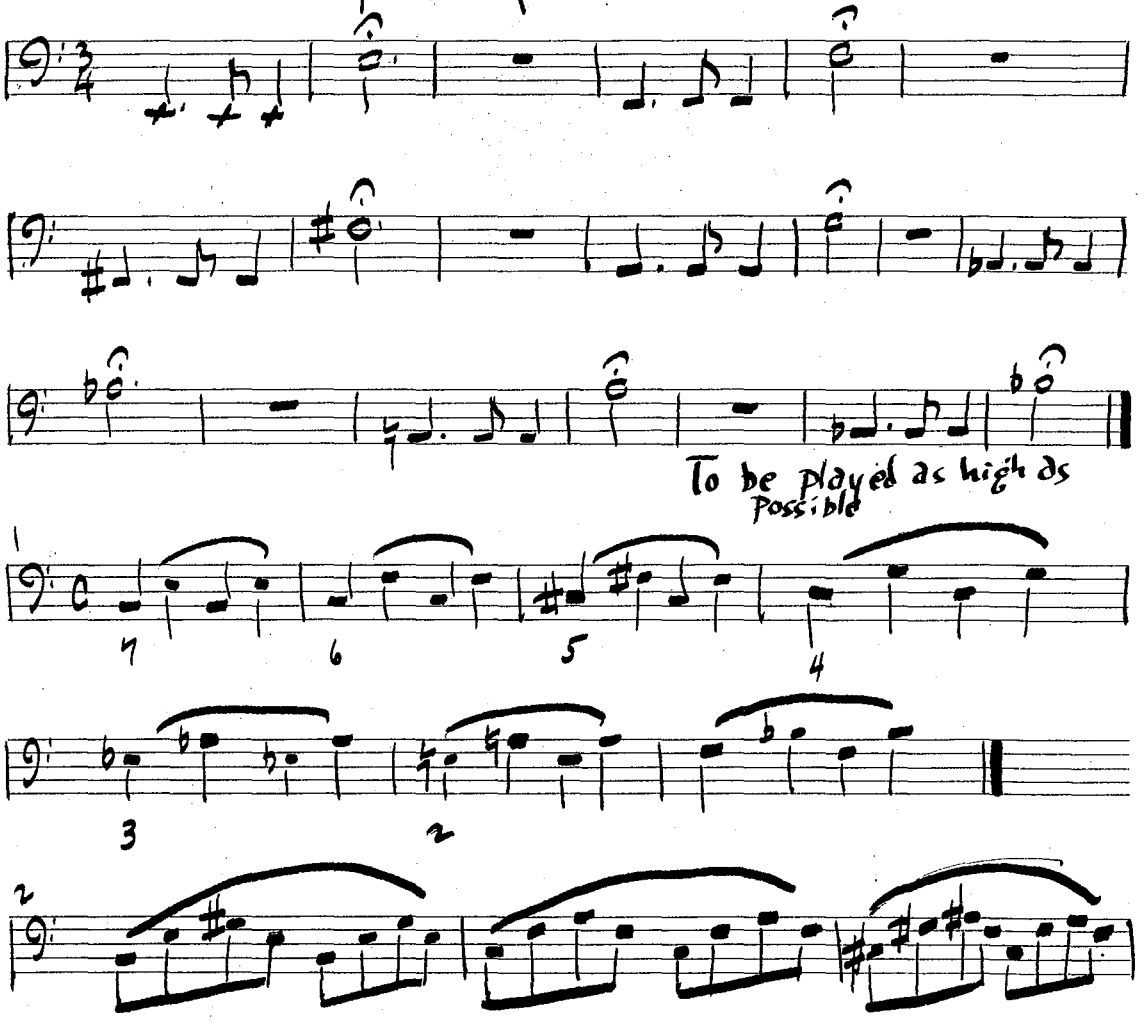
As the register improves this study should be played

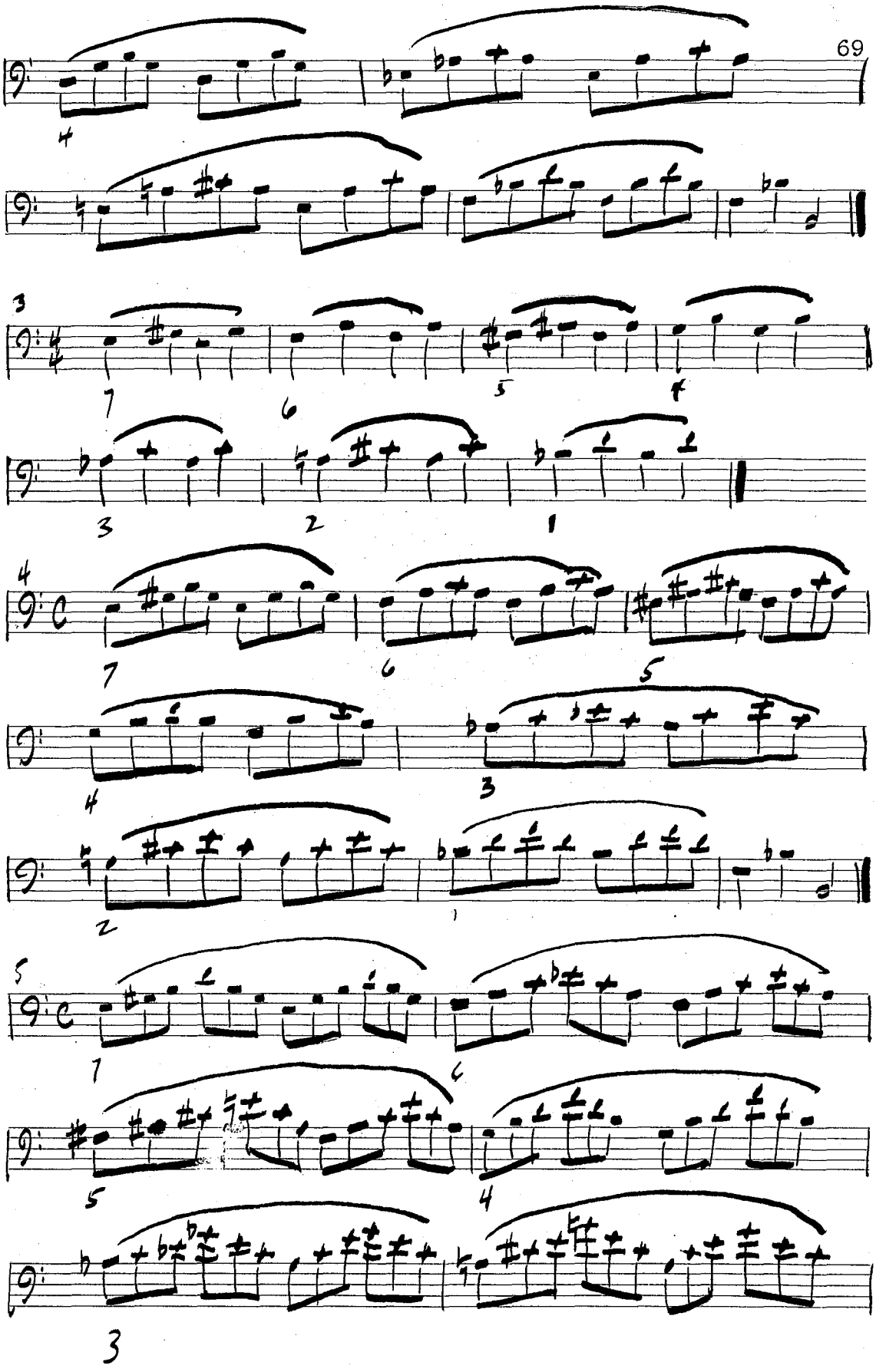
in all the seven positions by transposing it one-half step higher each time.

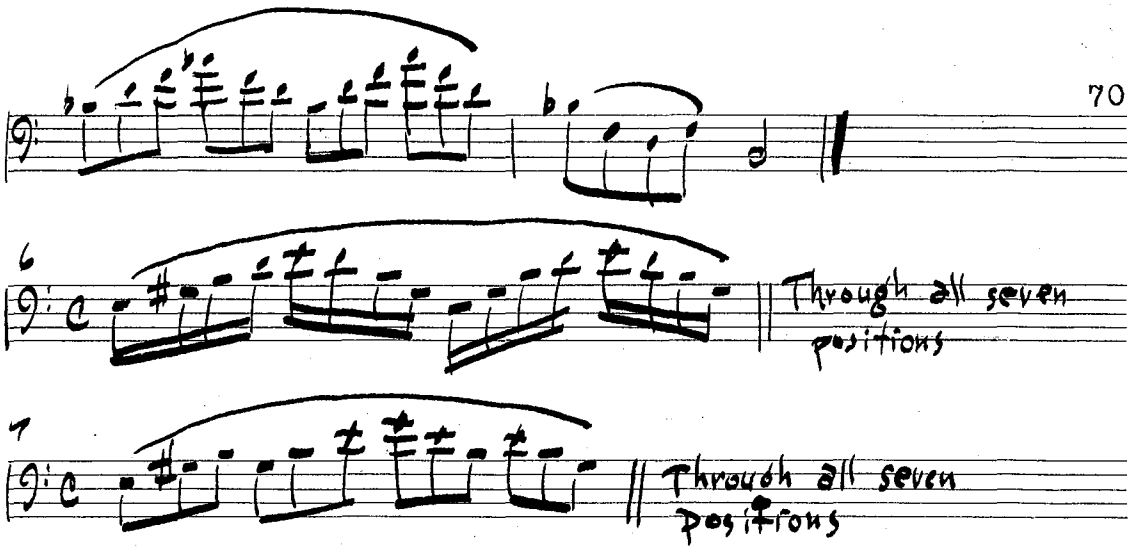




Study for precision of attack







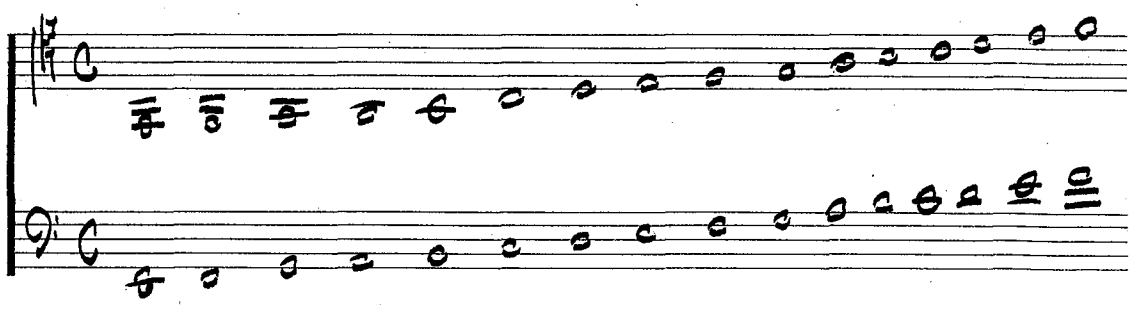
All the numbered exercises are to be used as embouchure building studies. The complete register of the instrument should be covered once each day.

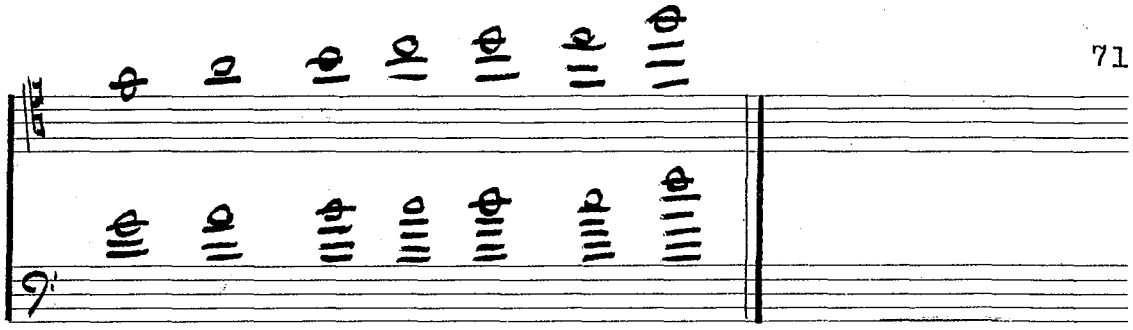
The Alto, Tenor and Treble Clefs

The serious student of the trombone should be well acquainted with these clefs. They are found in symphonic and grand opera literature. In the tenor clef, middle C is located on the fourth line. This same C is found on the third line in the alto clef. When playing in these clefs the instrument still sounds the same as the written note.

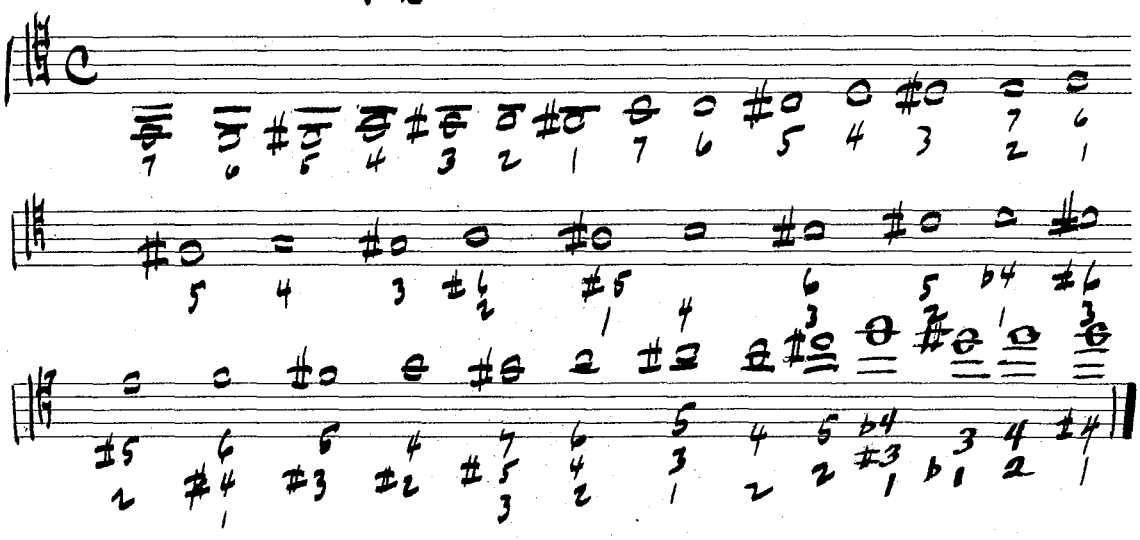
When the treble clef is used, the instrument sounds one whole step lower than it is written. In this clef the trombone becomes a transposing instrument.

The Tenor Clef

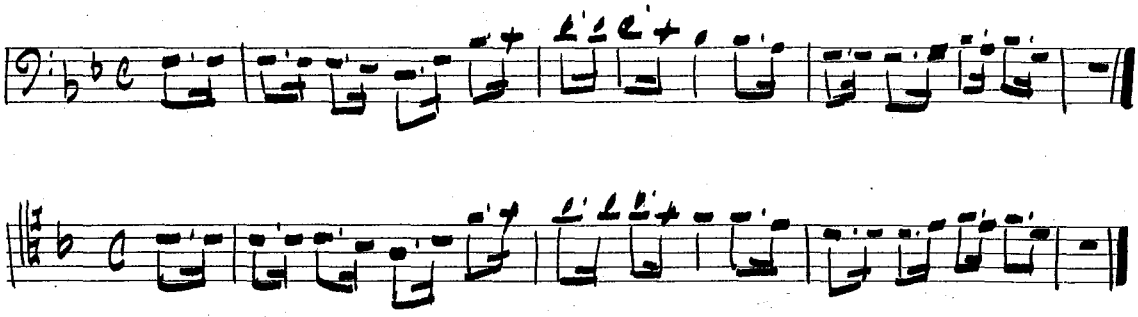




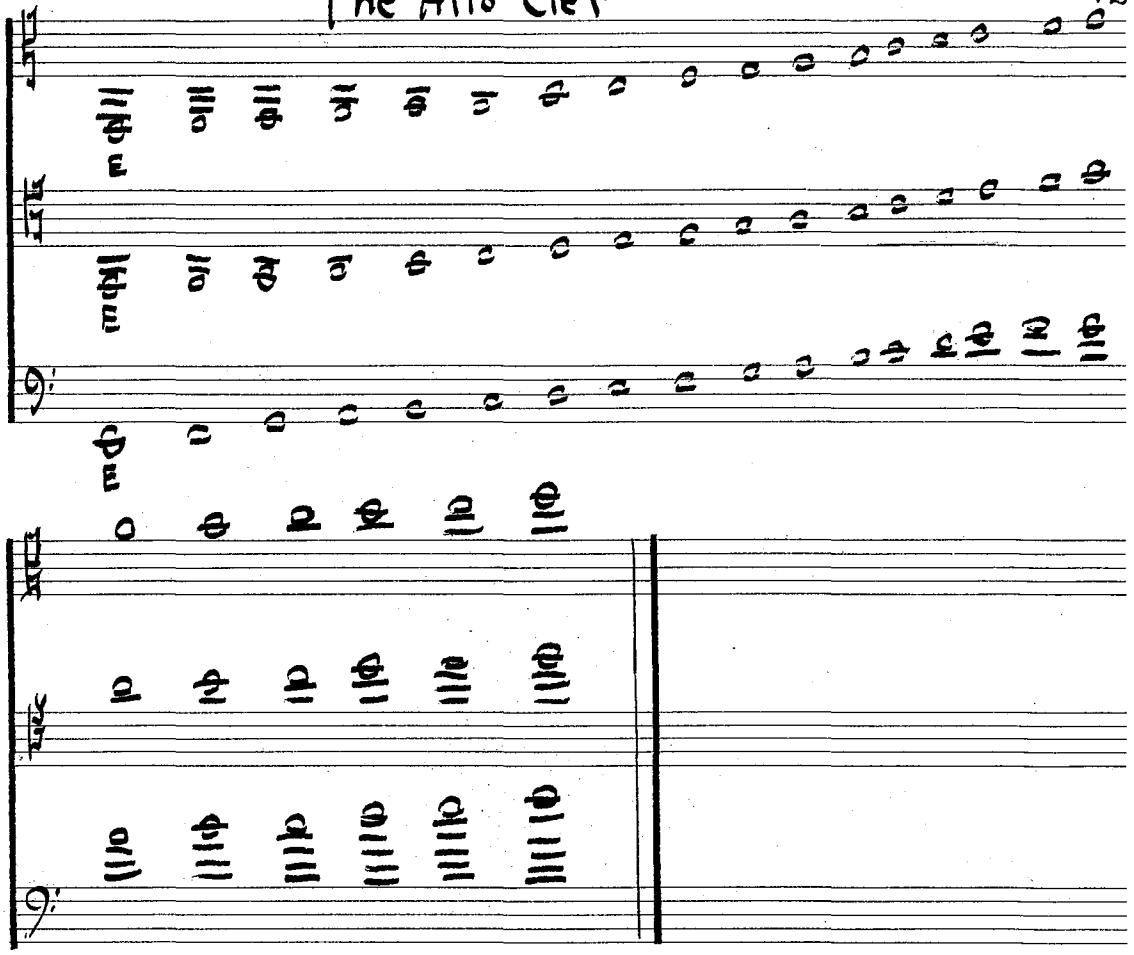
The Chromatic Scale



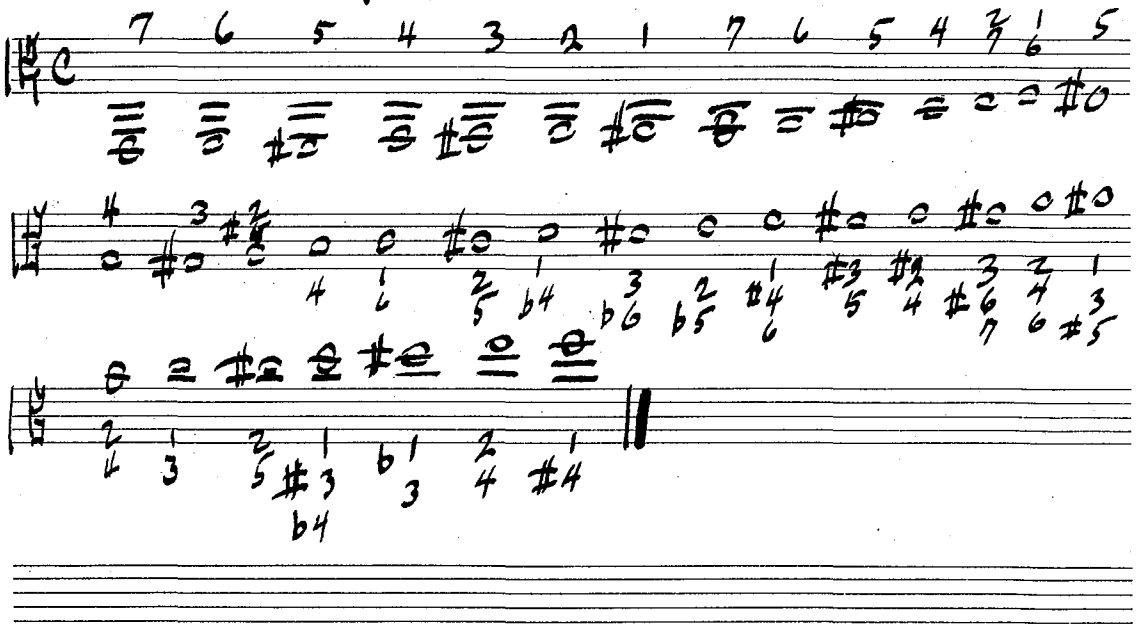
The student should play simple songs as though they were written in tenor clef, with the proper change of key signature. The relationship of the two clefs is the interval of a perfect fifth. To change a piece from bass clef to tenor clef necessitates lowering the key a perfect fourth. The following four measures will serve as an example.



The Alto Clef

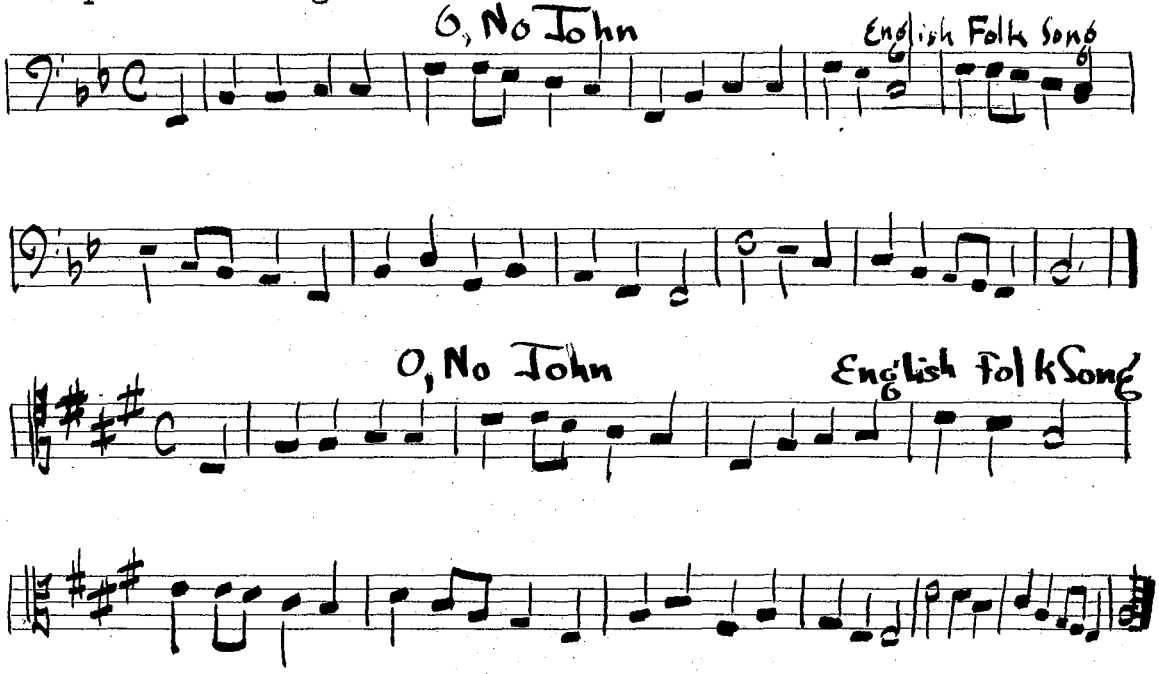


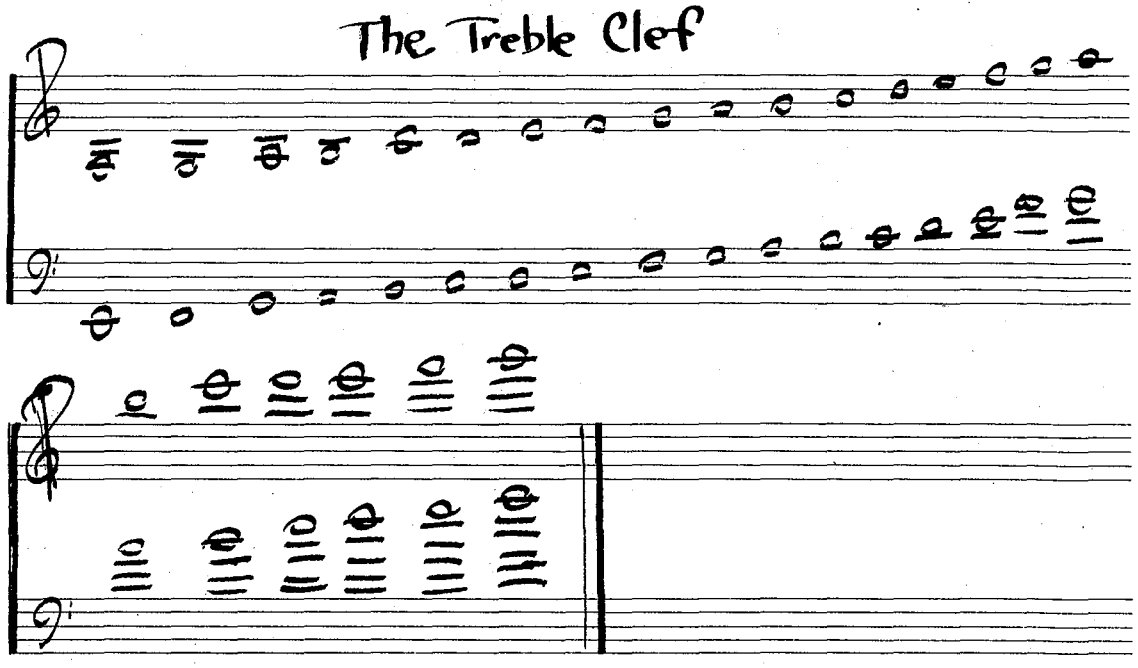
The Chromatic Scale

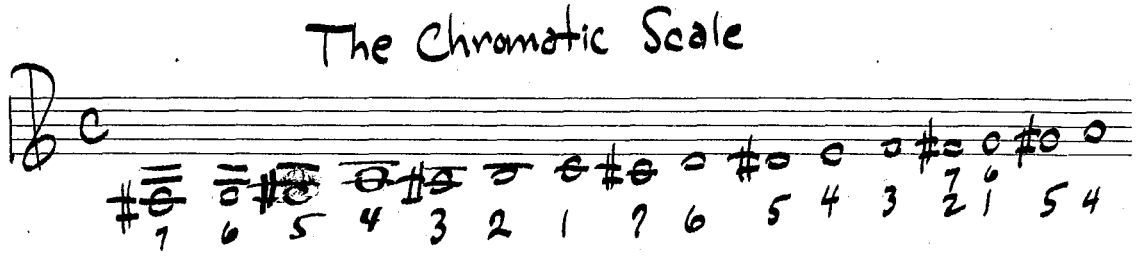


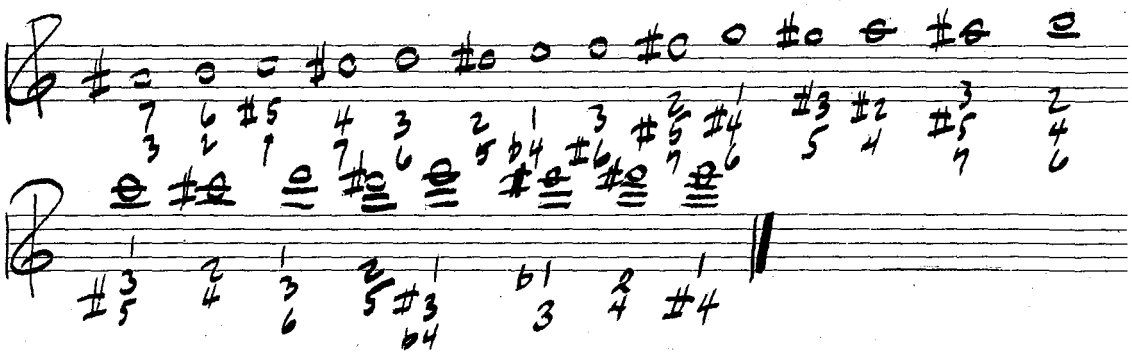
An example of a song written in bass clef and then changed

to alto clef. This change requires the addition of five sharps to the signature.

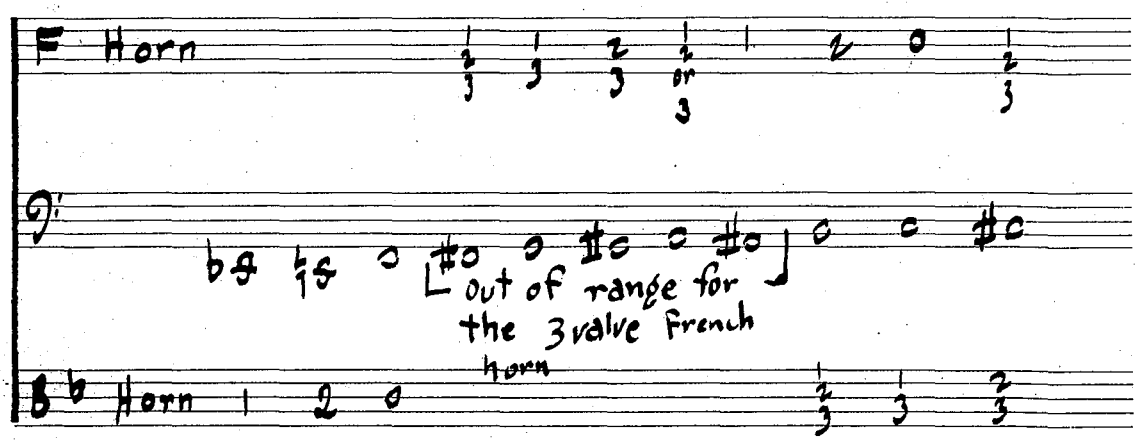


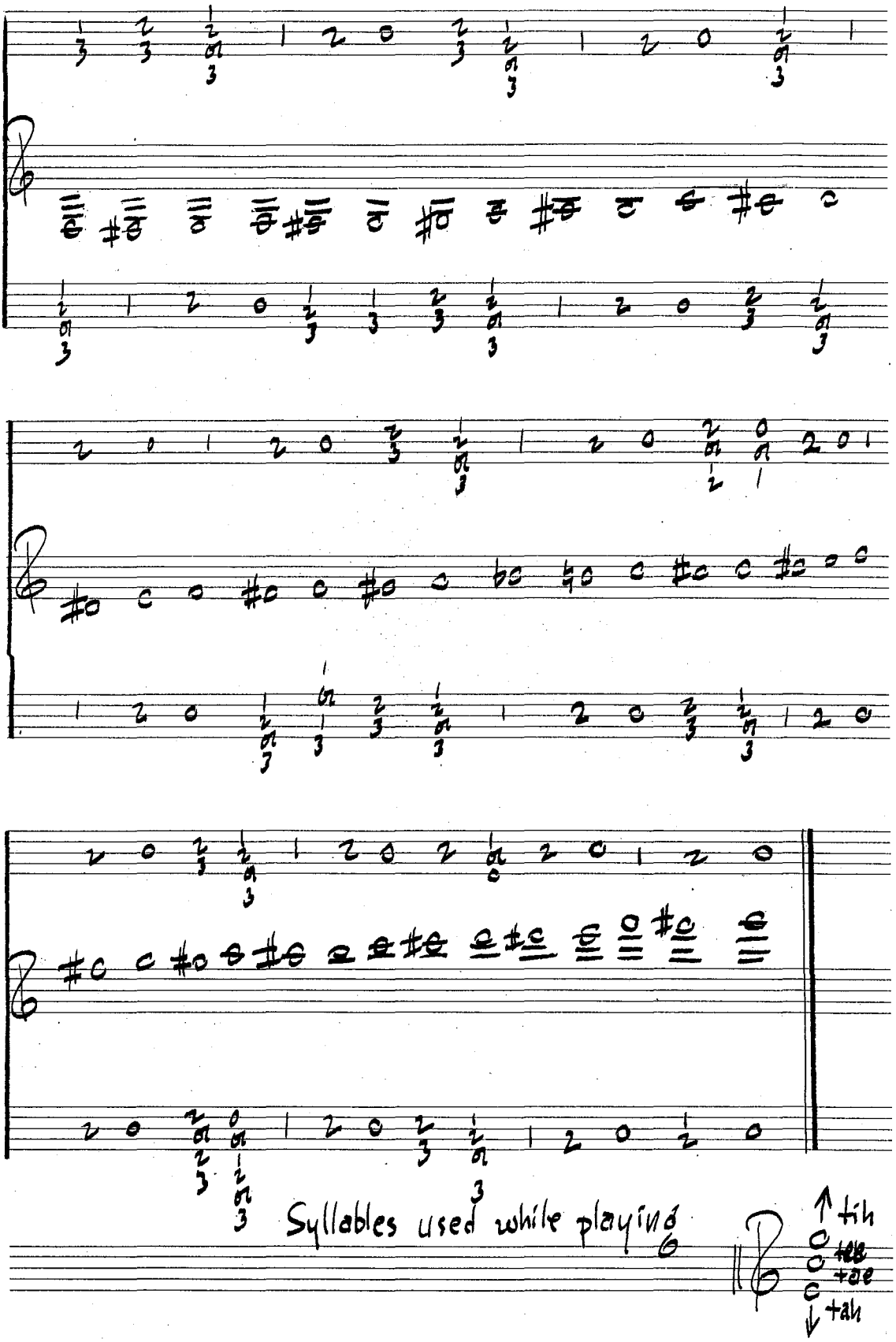


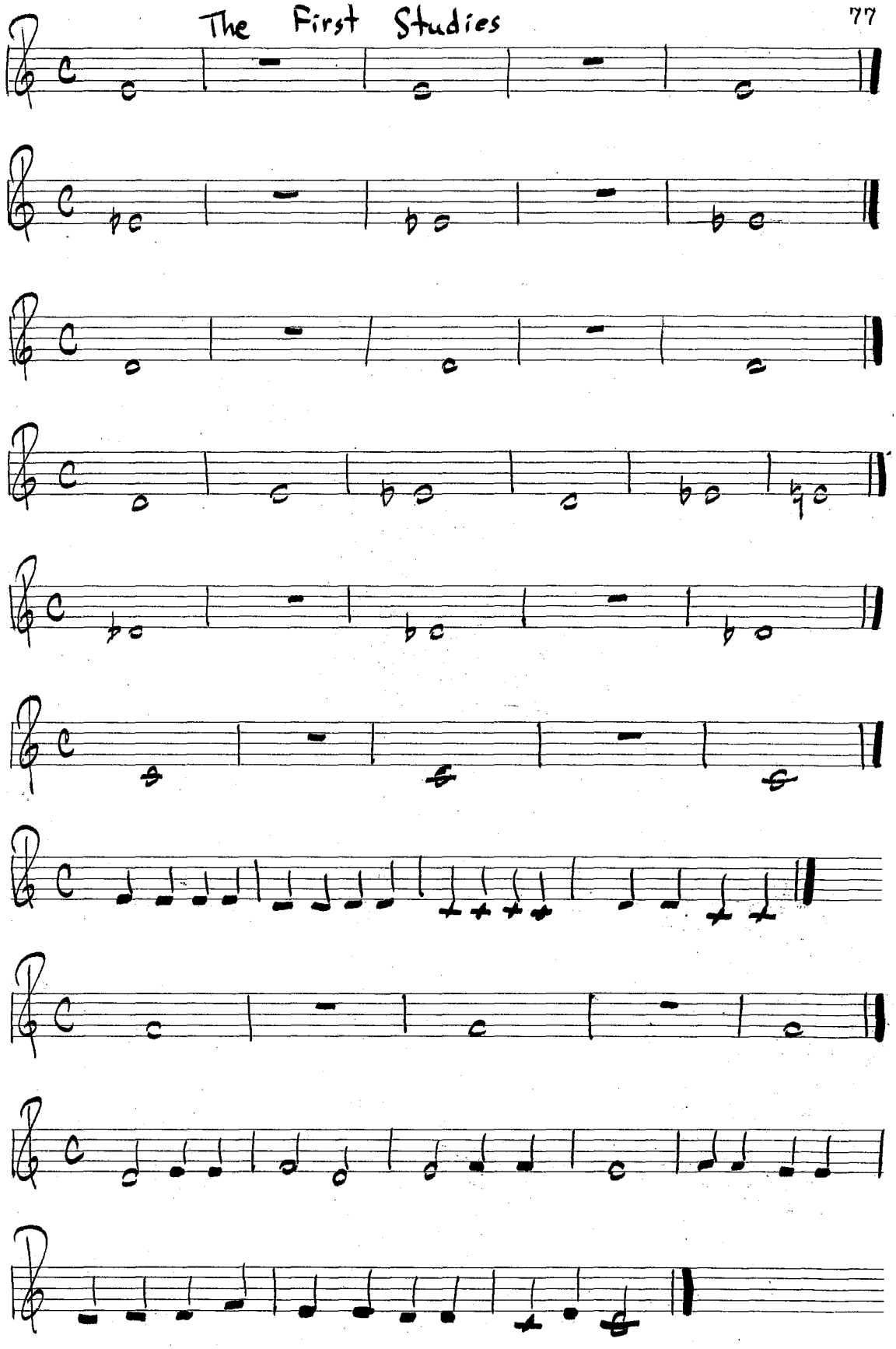


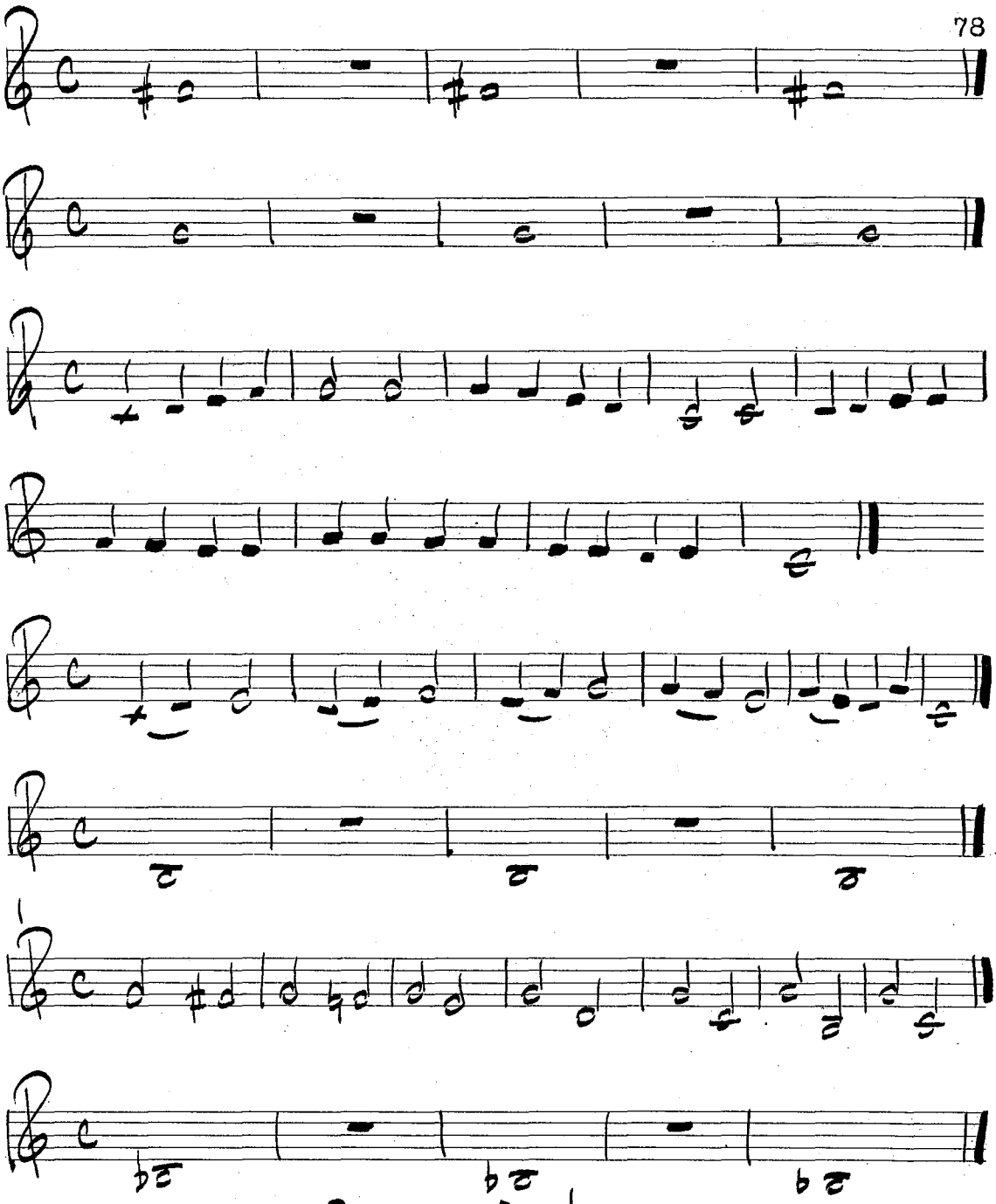


It is no longer necessary that the student of the french horn place the mouthpiece on the red part of the lower lip. Again, the most comfortable position, within reason, is the best. For many years the belief existed that nothing but an F or double horn was satisfactory. Today we find more and more converts to the single B horn. The B horn is not as difficult to control as the F horn, but many claim that it lacks the tone quality of the latter. If the player is using a double horn, all notes up to the third space C should be played on the F horn. All notes above this C should be played on the B horn. There is some difference of opinion among many fine players, as to the position of the right hand in the bell. There are two ways which are the most popular. The right hand is placed within the bell however, one should be careful not to close it entirely. The fingers and thumb are held together in a slightly rounded fashion. The upper part of the hand comes in contact with the lower part of the bell. In the other method the right hand is held in the same fashion, but the upper part of the hand contacts the upper part of the bell.

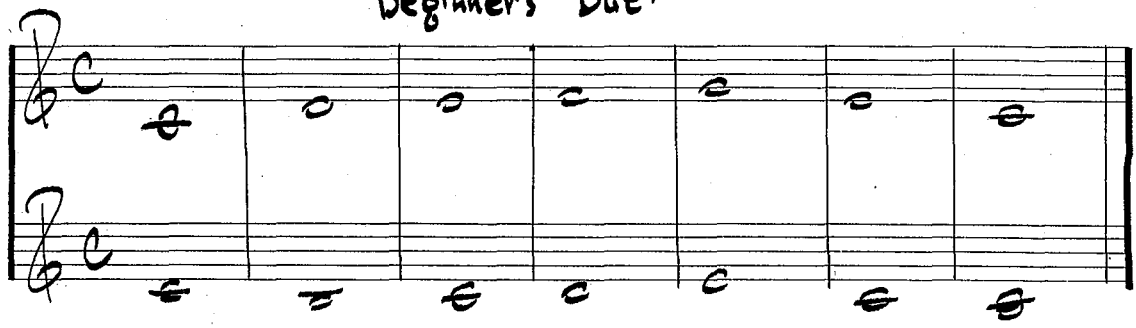


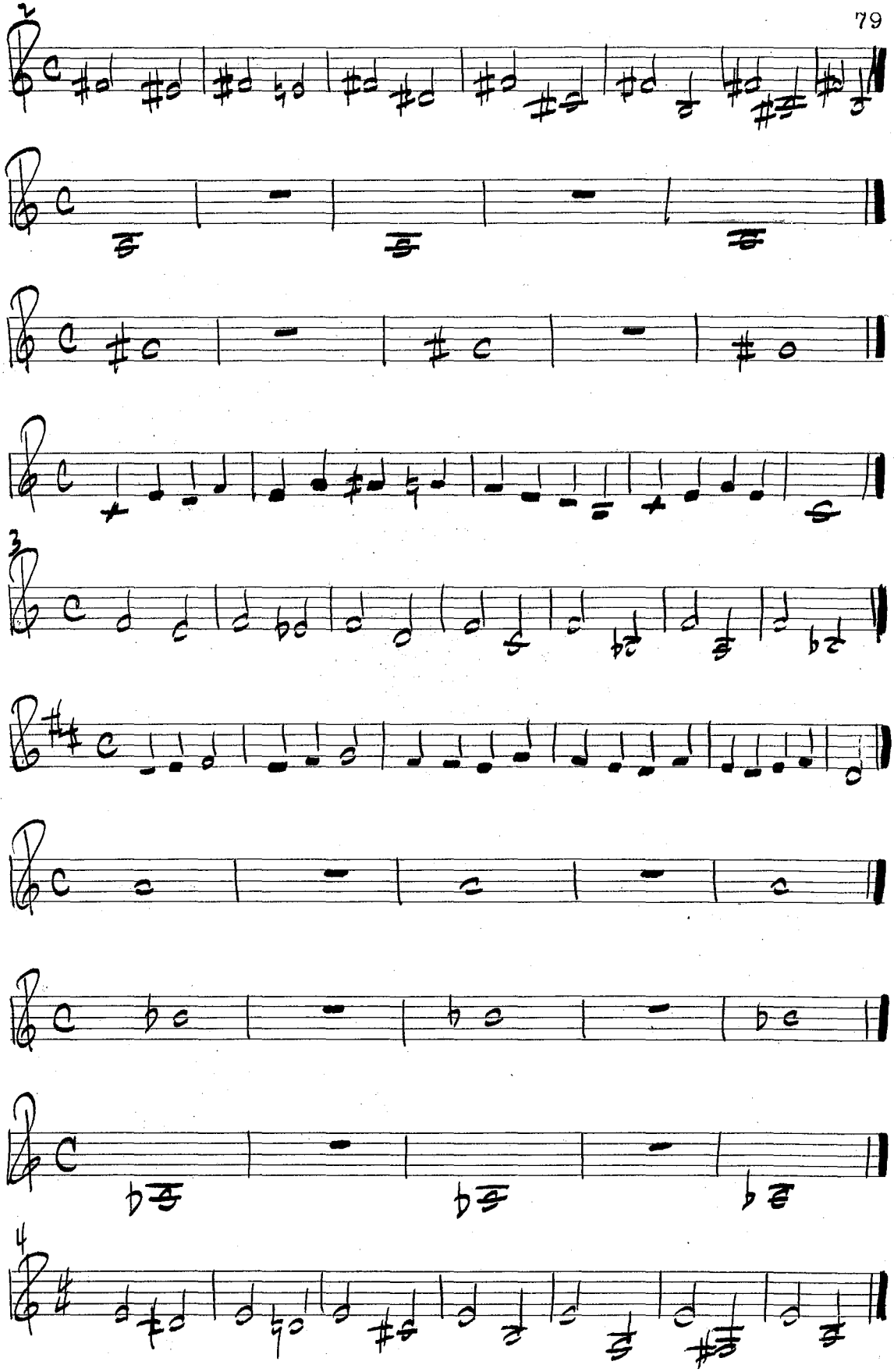

Syllables used while playing
↑ tih
tah
tae
↓ tah

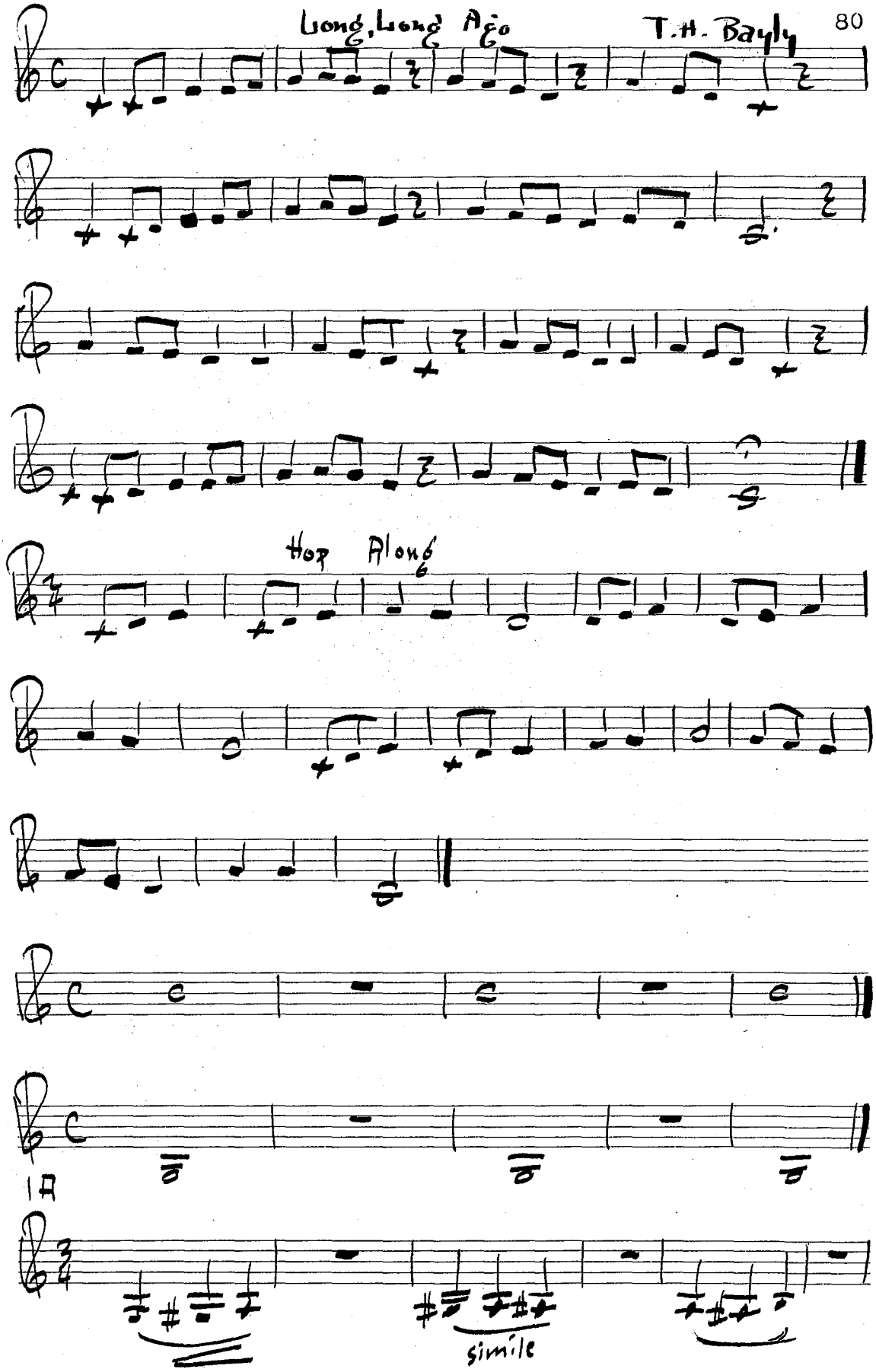


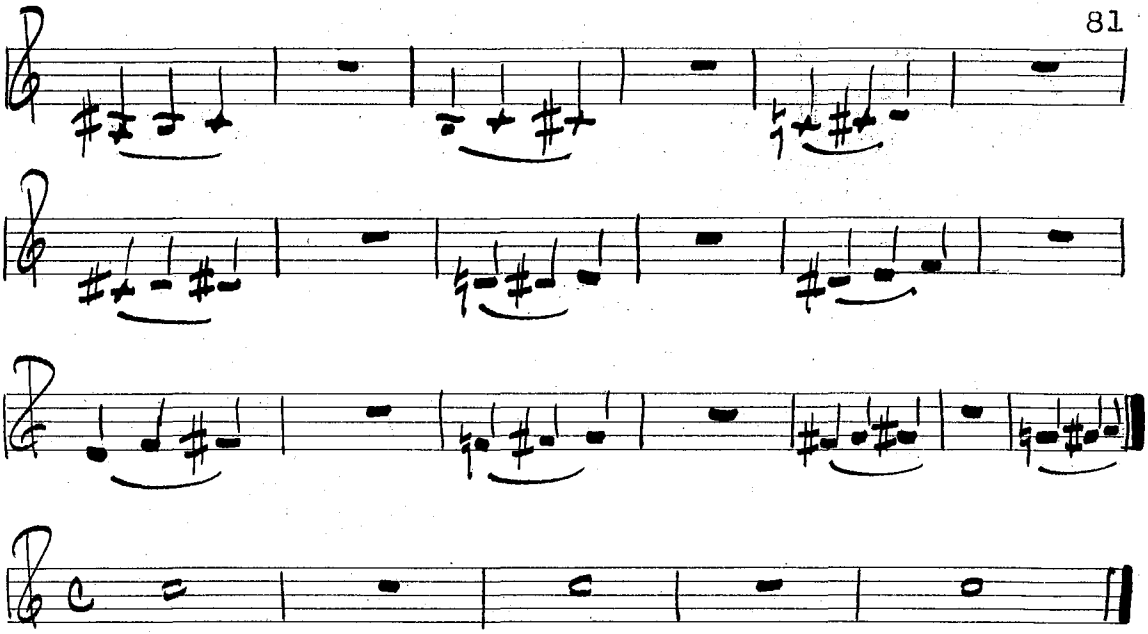


Beginner's Duet

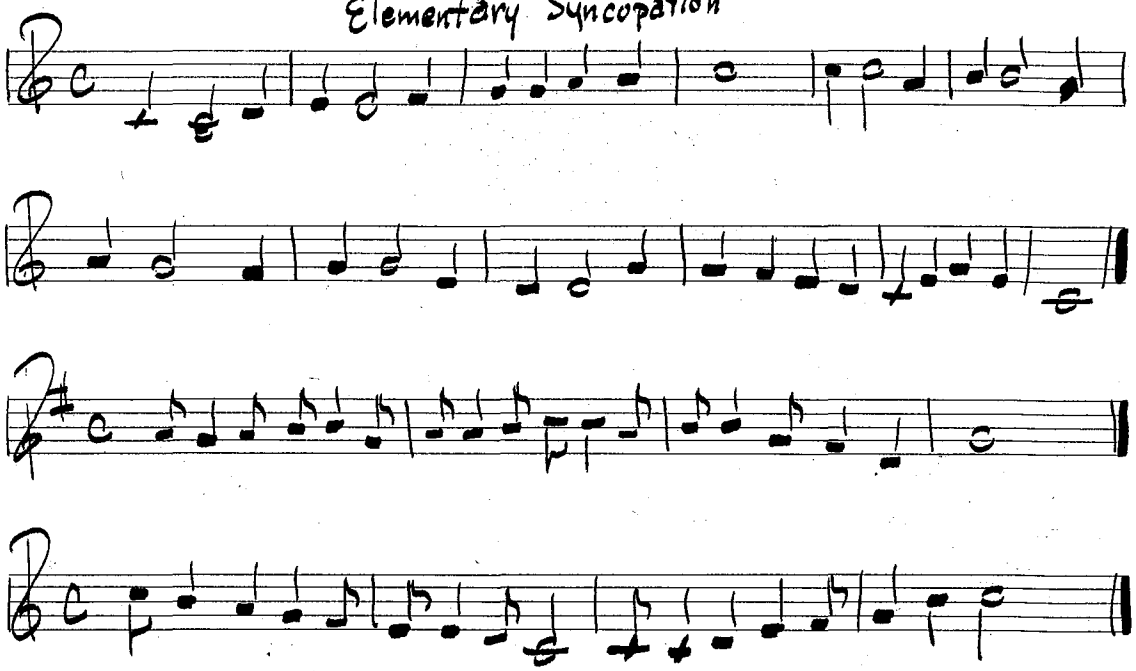




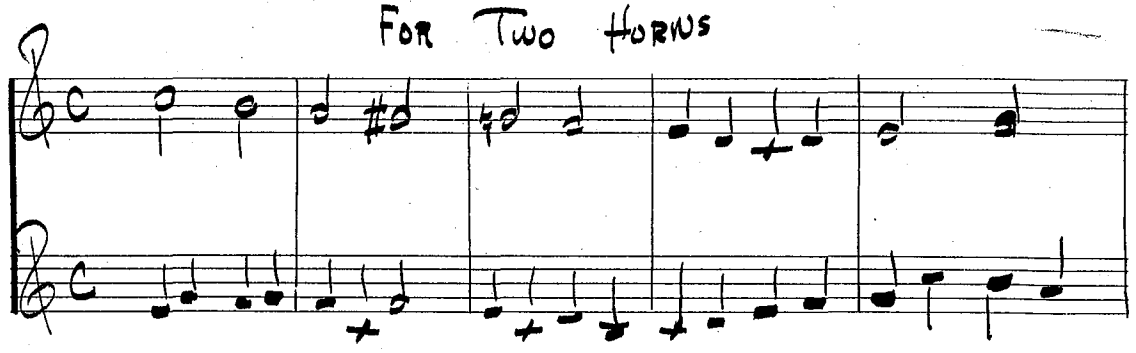

Long, Long Ago
T.H. Bayly
Hop Along
simile

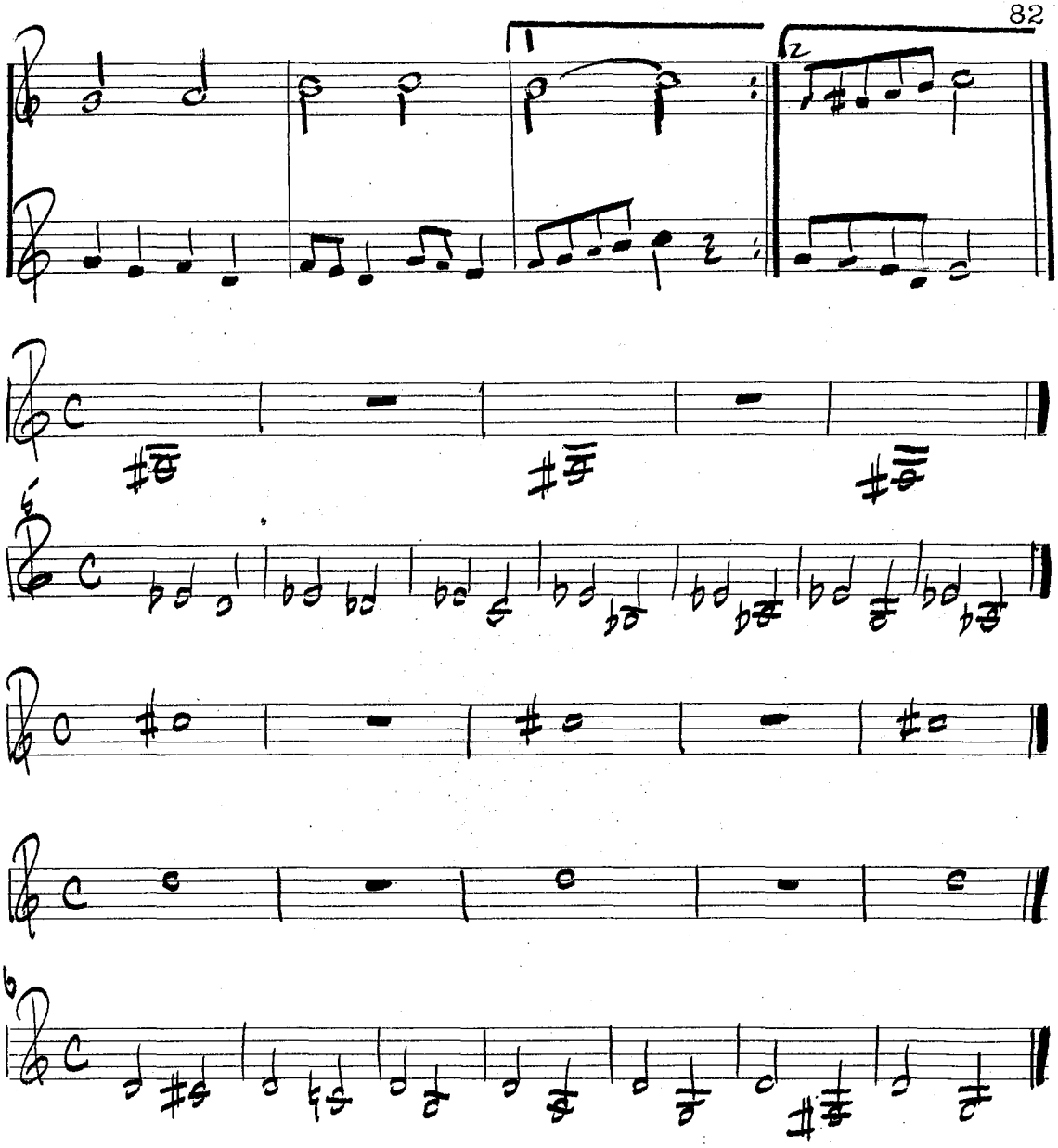


Elementary Syncopation



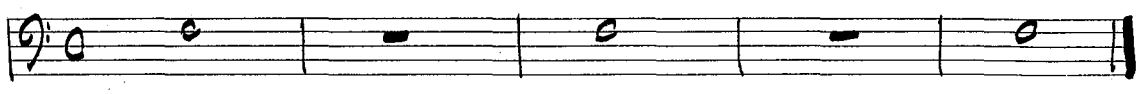
For Two Horns

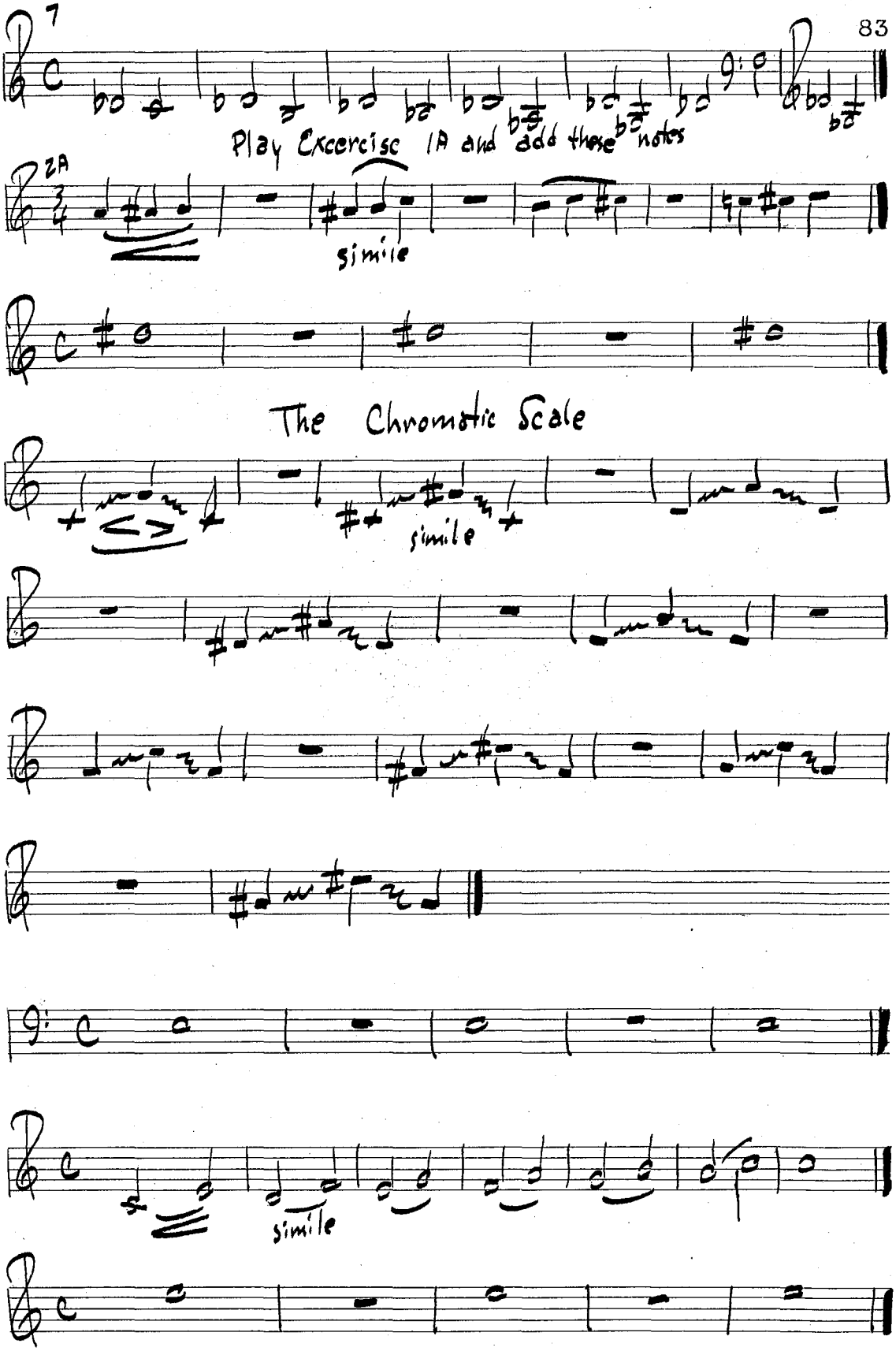


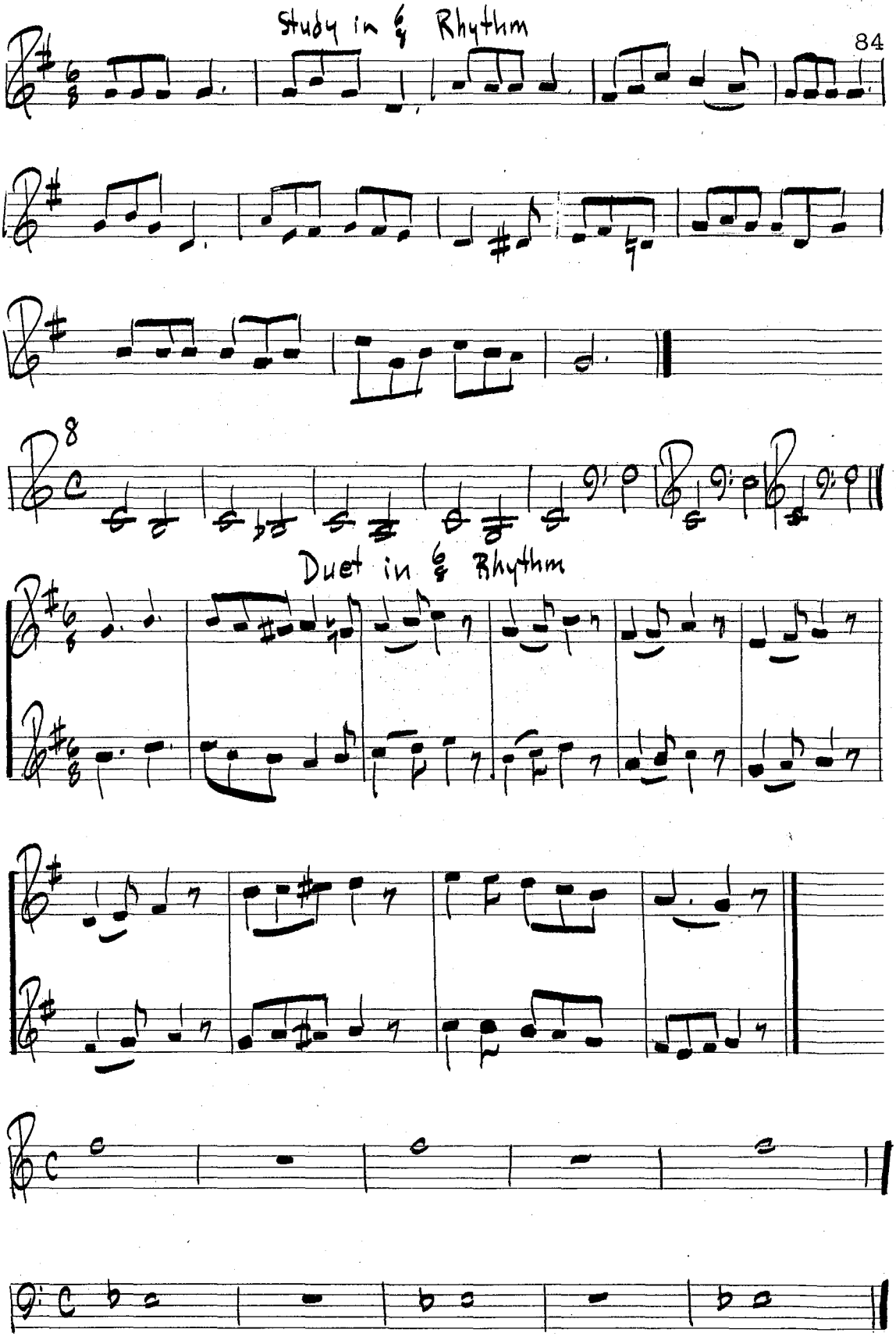


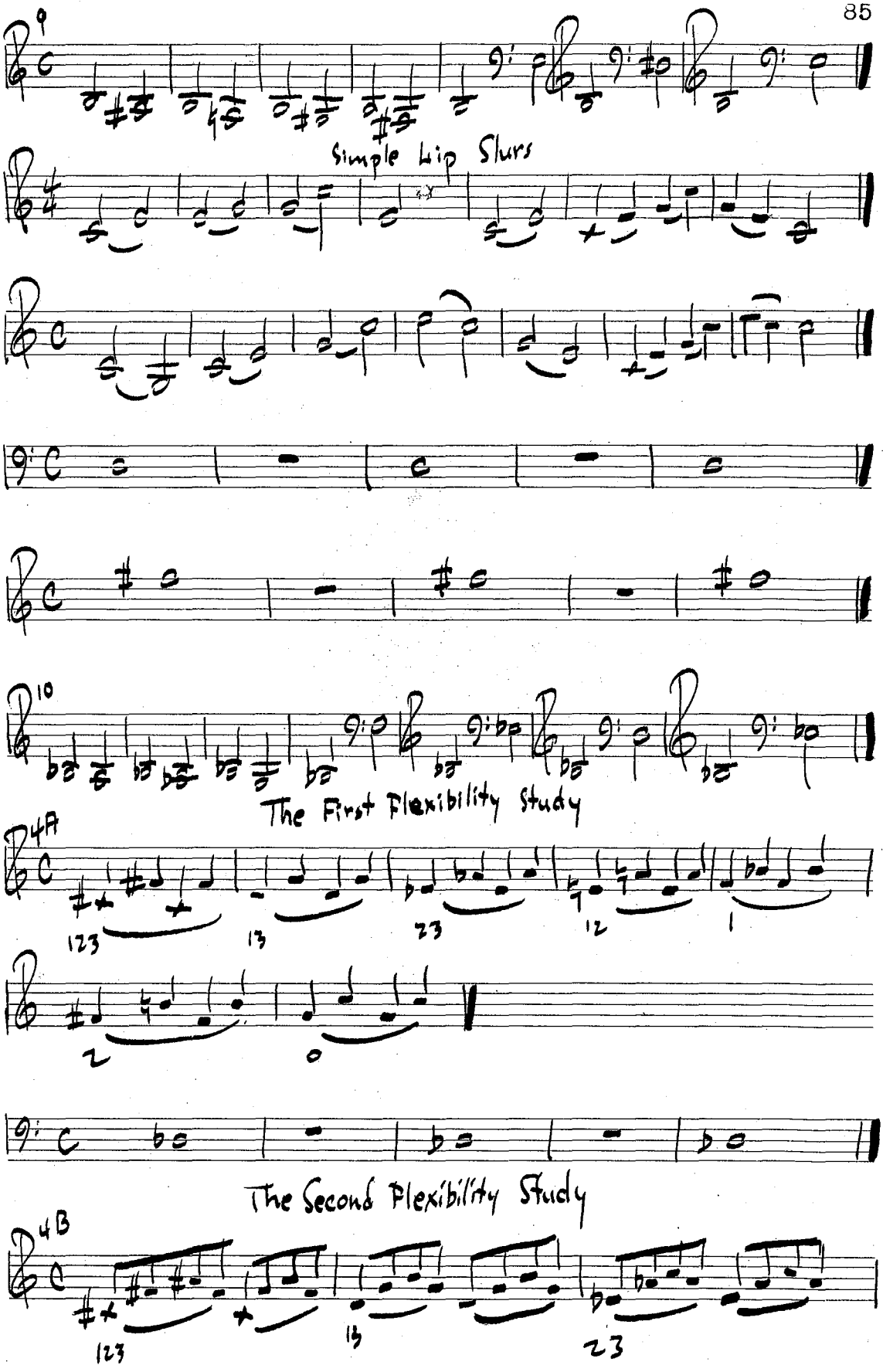
Introducing the Bass Clef

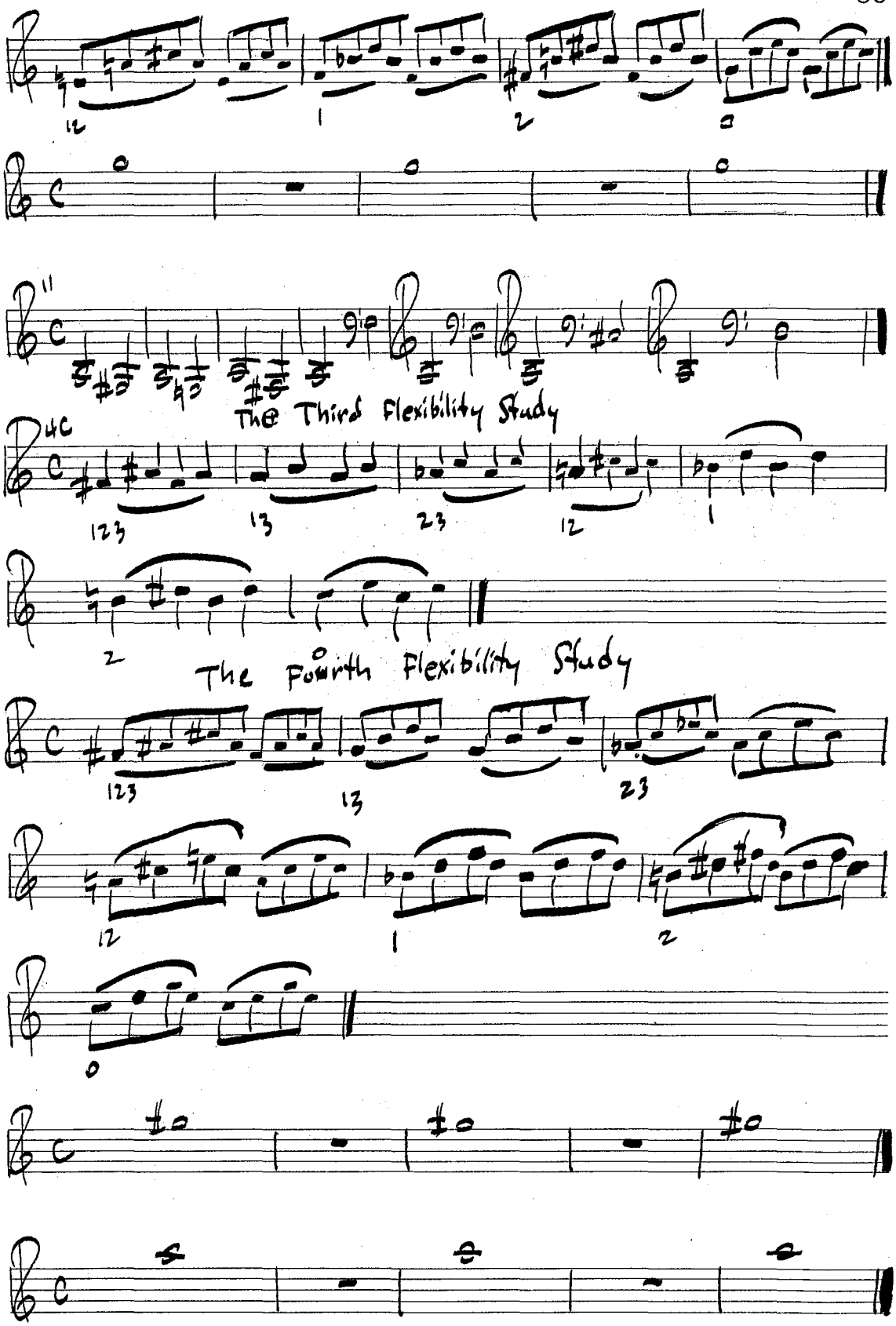
The student should think of the bass clef as an extension of the treble clef. The exercises move quickly from one clef to the other to accustom the student to problems in classical literature.




7
Play Excercise 1A and add these notes
2A
simile
The Chromatic Scale
simile
simile


Study in 6/8 Rhythm
8
Duet in 6/8 Rhythm

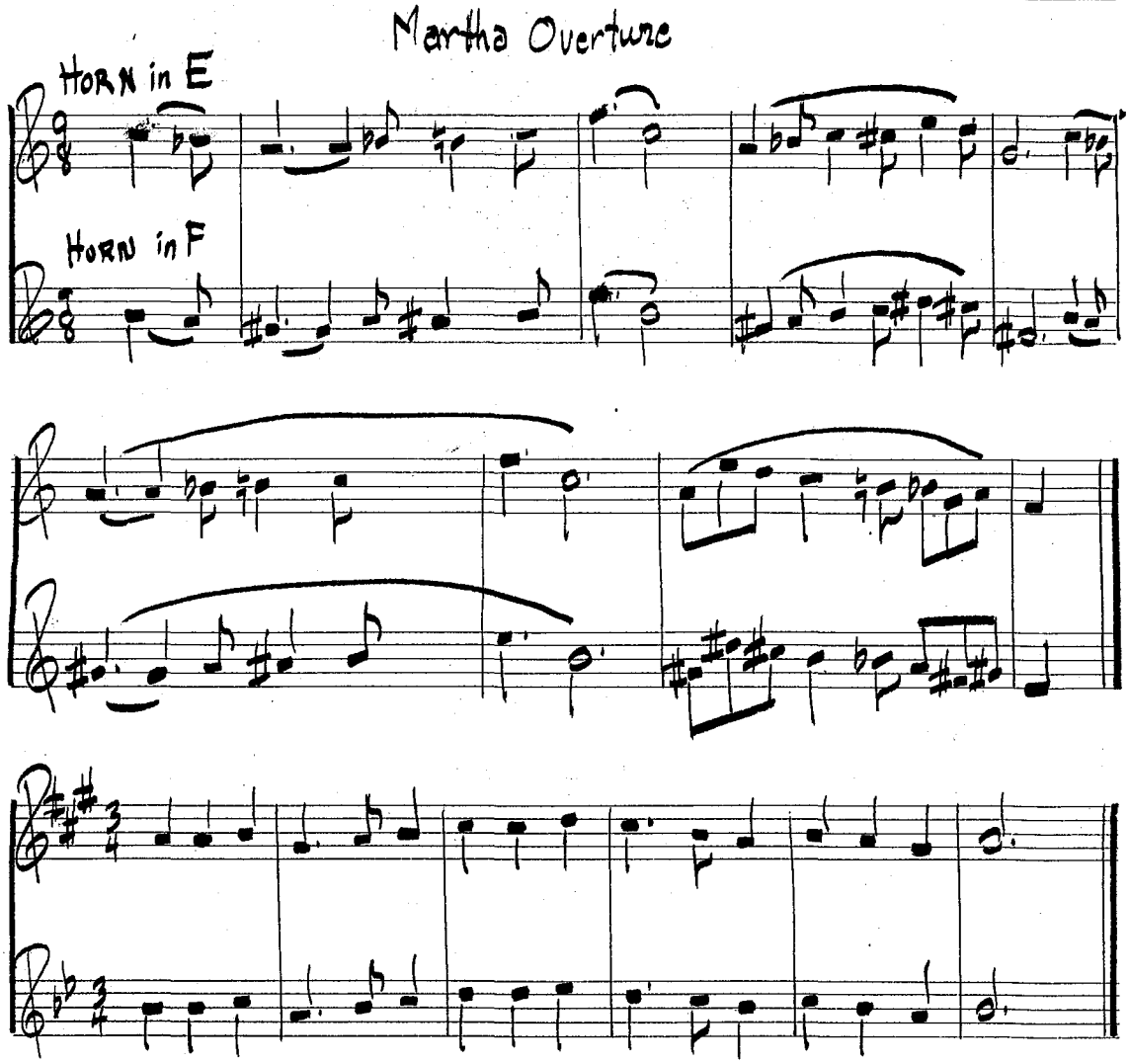

9
Simple Lip Slurs
10
The First Flexibility Study
4A
123
13
23
12
1
2
0
The Second Flexibility Study
4B
123
13
23


The Third Flexibility Study
The Fourth Flexibility Study

From this point on only the studies differing from the trumpet book will be included. All the studies for developing the embouchure are the same as those for the trumpet. Triple and double tonguing are also executed in the same manner.

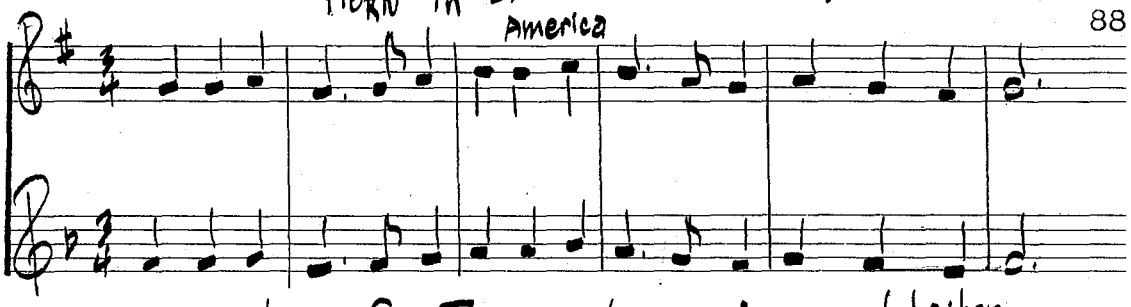
The Study of Transposition

The horn in E requires the transposition of a minor second lower than written. In each of the following examples the top line indicates the part as written; the bottom indicates the part as played.



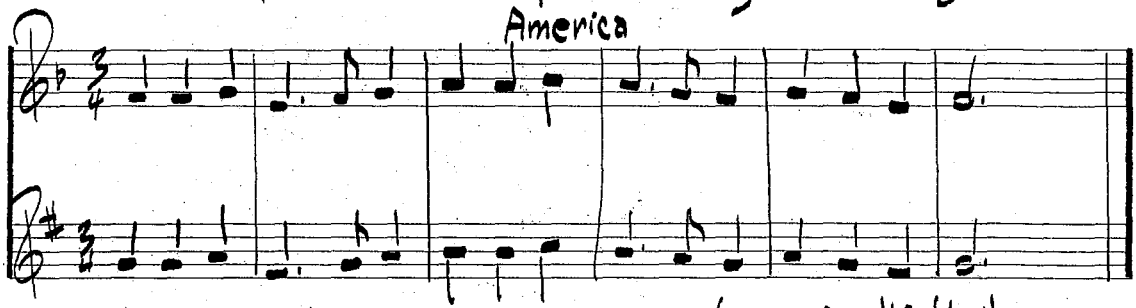
Horn in Eb – Transposed a major second lower

America



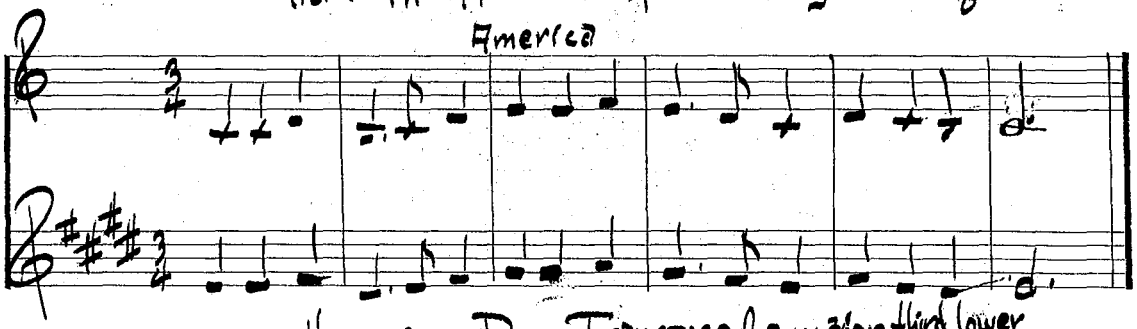
Horn in G – Transposed a major second higher

America



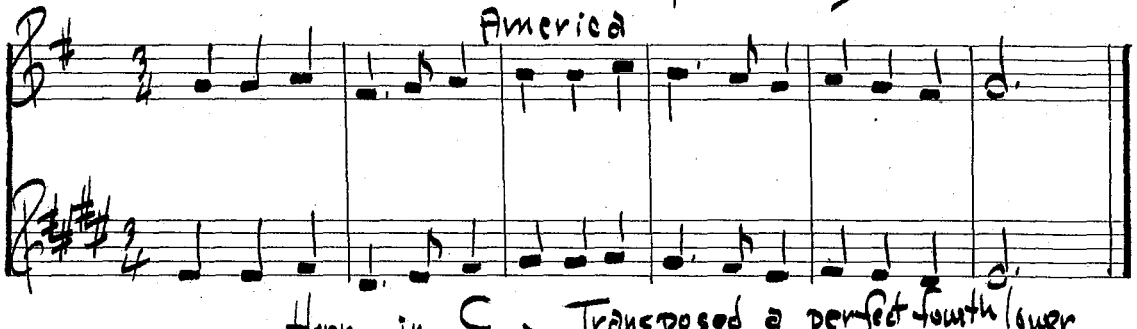
Horn in A – Transposed a major third higher

America



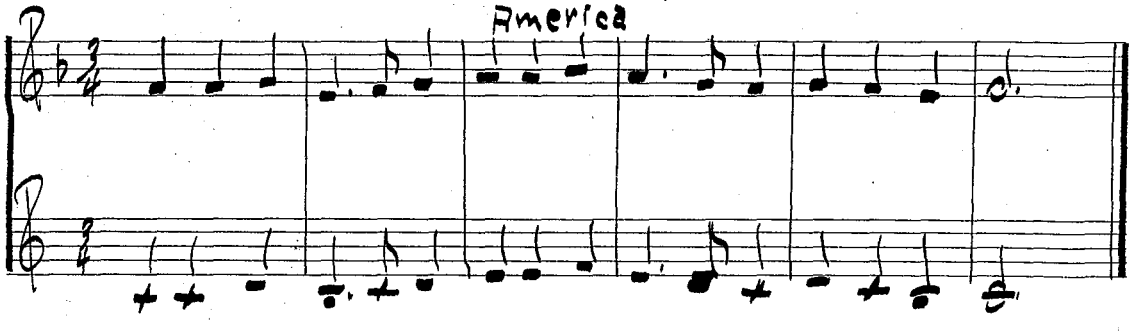
Horn in D – Transposed a major third lower

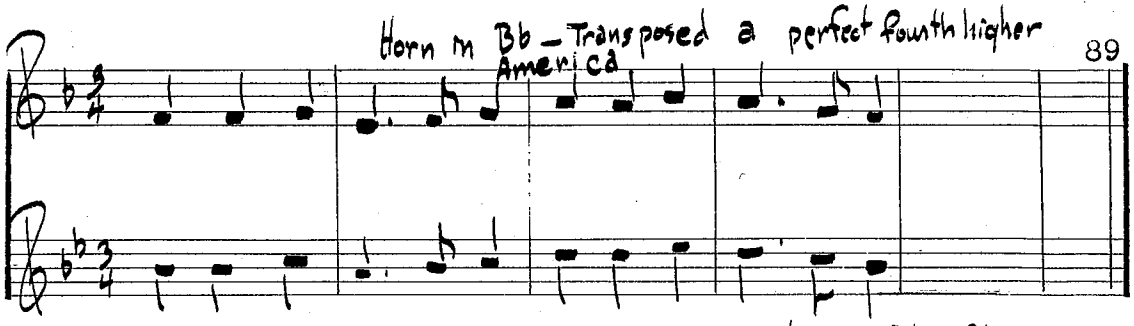
America

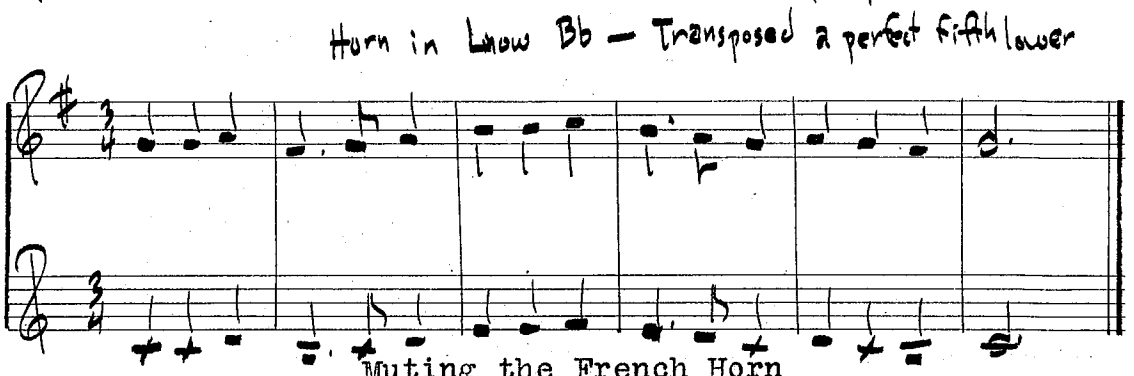


Horn in C – Transposed a perfect fourth lower

America

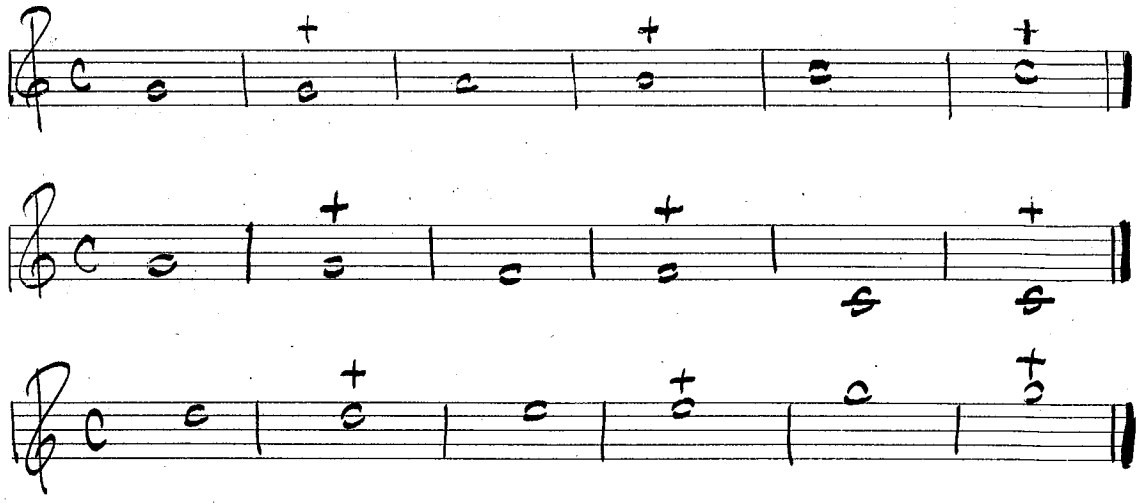


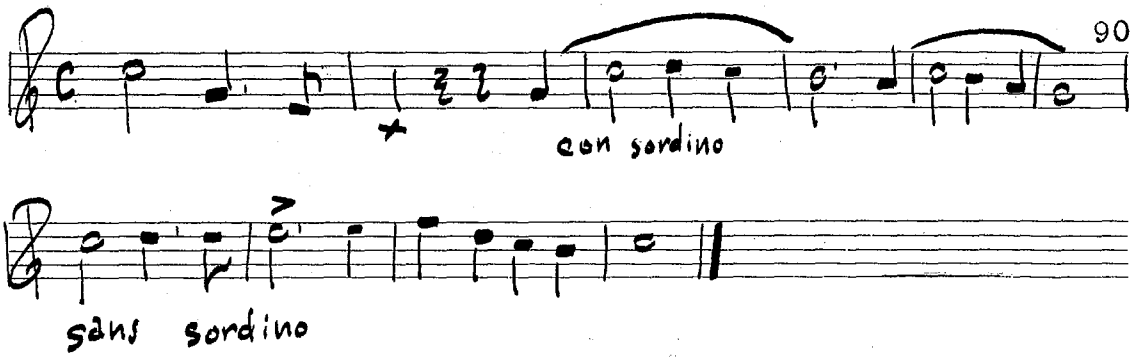




Muting the French Horn

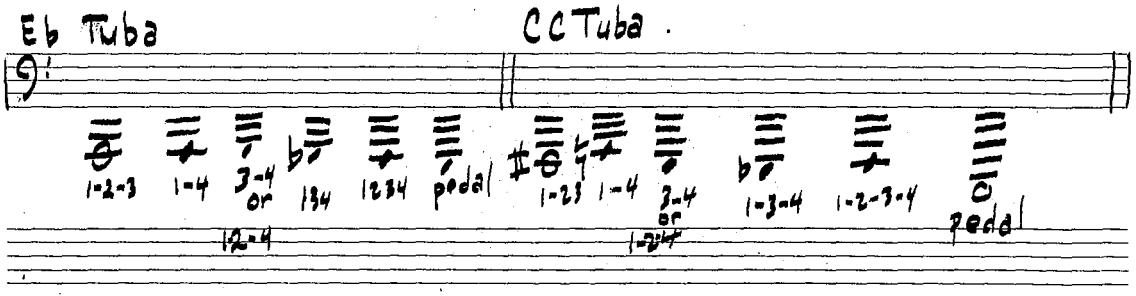
The muted effect can be produced by the use of a mute or by pushing the hand farther in the bell. The distance that the hand moves in the bell varies. In the low register the hand should not be pushed as far in as for the middle or high registers. The reason for this is that the tone would become too muffled. Muting in the middle and high registers will generally produce a pitch one-half step higher than written. This necessitates transposing such passages one-half step lower. In the following exercises the muted notes will be marked with a +.

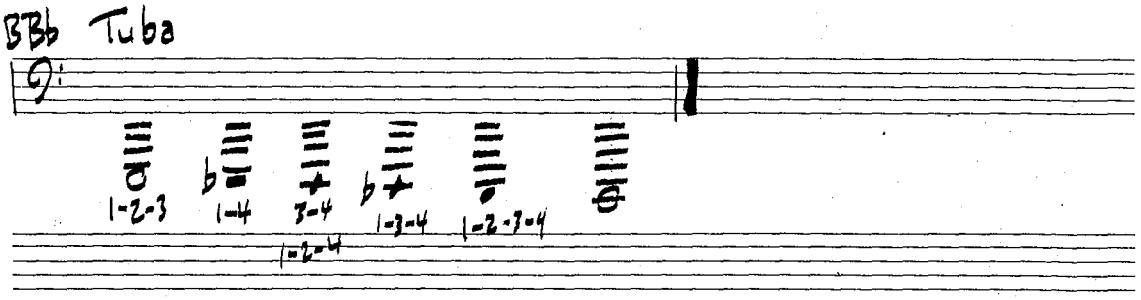



con sordino

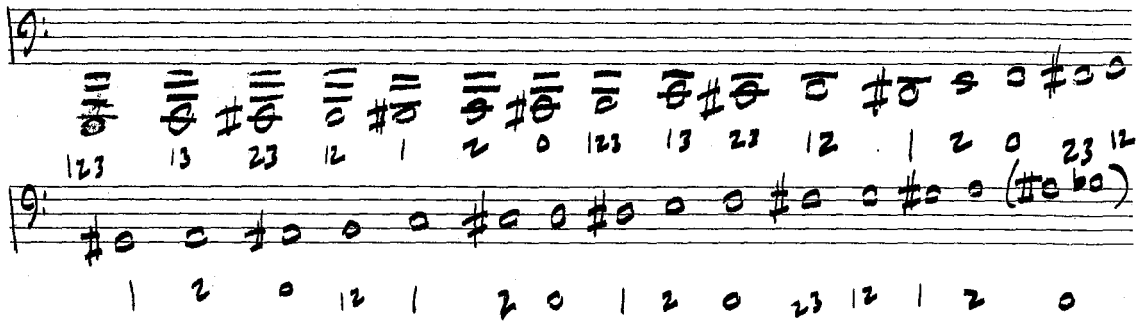
sans sordino

This method is written for the BB Tuba. There seems to be a great deal of misunderstanding regarding the use of the fourth valve found on some tubas. Some teachers and students have the impression that this valve is used only to correct intonation problems. The pitch of certain tones is improved by the use of this valve, but the prime purpose is the addition of several semi-tones in the low register. In the following chart, the whole note denotes the lowest note possible on the tuba with three valves. The quarter notes denote the added notes possible by the use of the fourth valve.

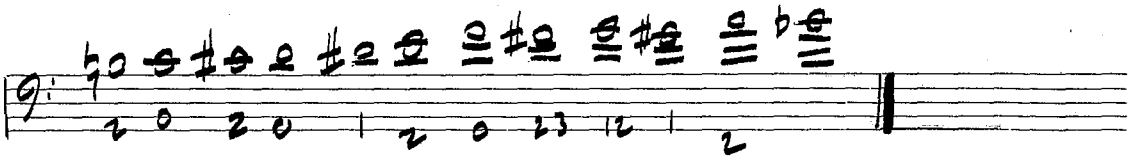




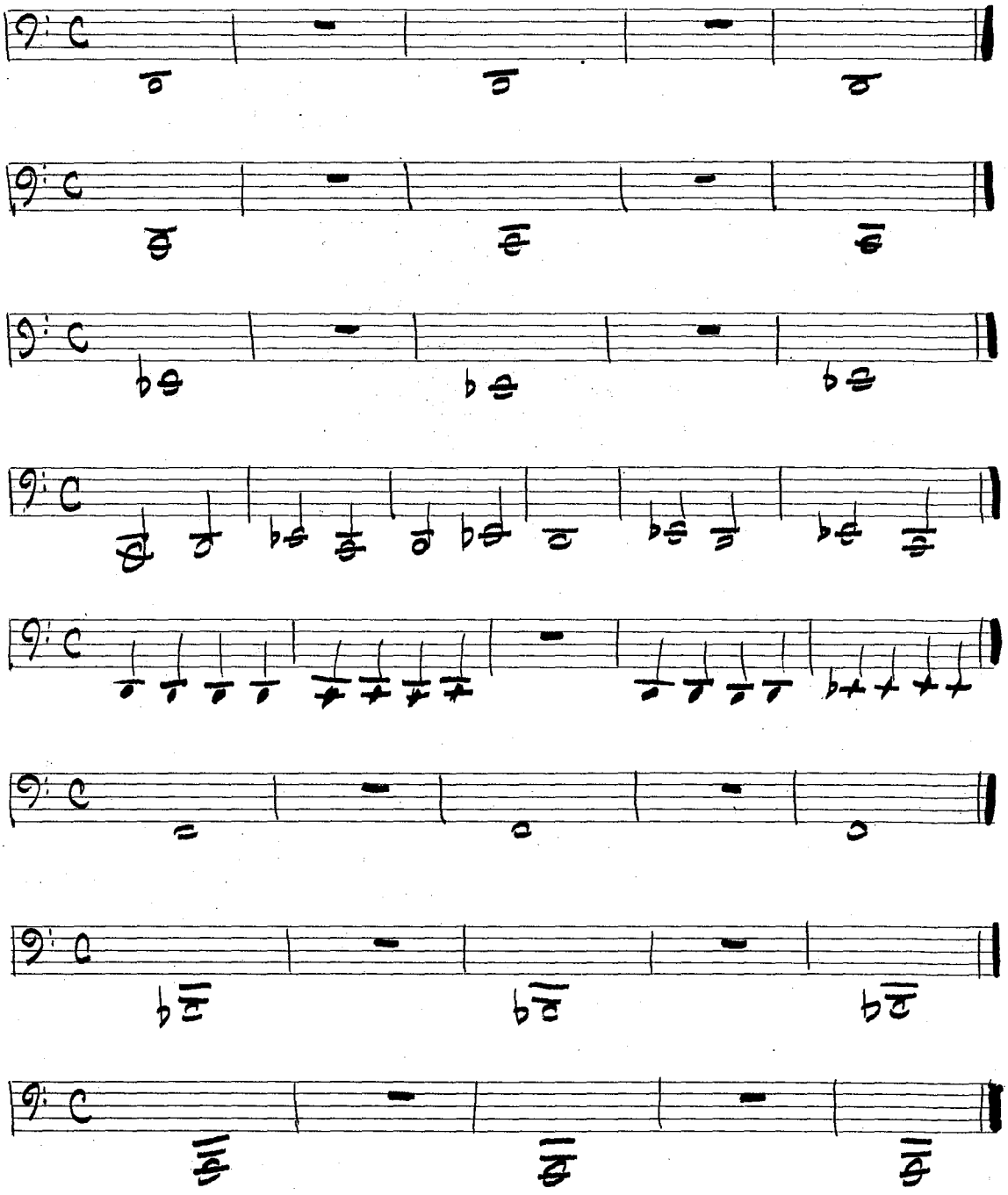
The Chromatic Scale



The Fingerings for the Notes Above High Bb



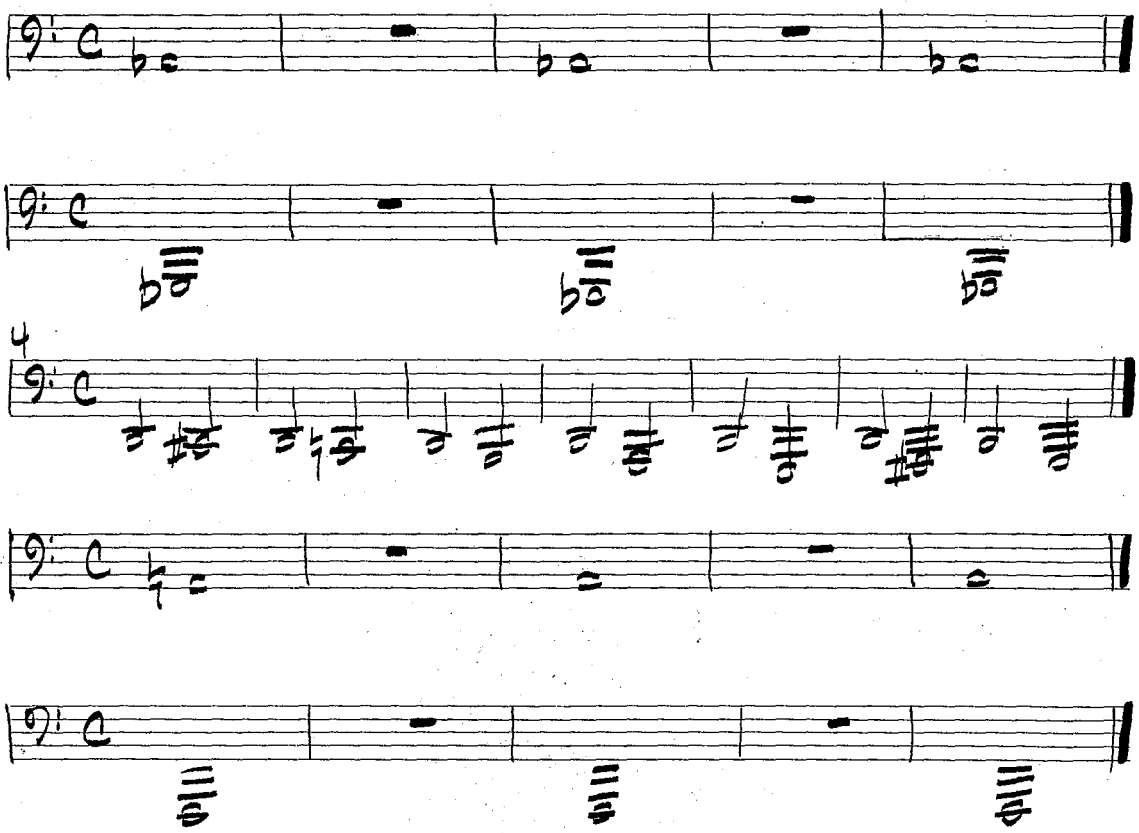
The First Excercises



2

3

A March



The tuba method will be terminated at this point. Any further writing would be mere duplication of the trumpet book. The same studies should be used for the development of the embouchure as were used for the other instruments.