THE AUGMENTED Scale In Jazz

A Player's Guide

By Walt Weiskopf & Ramon Ricker

For ALL Instruments

THE AUGMENTED SCALE IN JAZZ

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Music copying by David Rivello and Ramon Ricker

INTRODUCTION

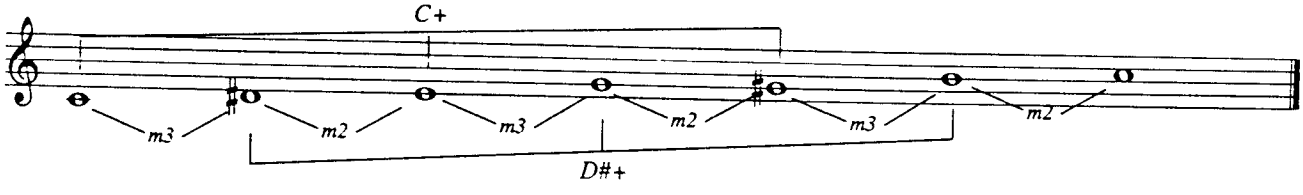
Much has been written about diminished scales, triads and seventh chords and their use in jazz improvisation, but relatively little discussion has focused on augmented material. Of the two, the diminished scale has taken the primary role in coloring jazz improvisation through the Swing and Bebop eras and retains that position today. The augmented scale and triad, on the other hand, have been used in modern jazz in more of an intuitive way. What this book attempts to do is to de-mystify the augmented scale and put it to practical use in various jazz settings. While certain jazz theory and improvisation books have discussed this scale in passing, the authors are aware of no previous writings or publications which have dealt with this subject in depth.

The first section of this book explains the scale and its possible uses. The second section offers exercises and etudes which will help the student develop the technique necessary to use the material in jazz improvisation but perhaps most importantly, this section will aid in assimilating the sound of the scale in one's ear.

AUGMENTED SCALE CONSTRUCTION

Often called the *minor third, half-step scale*, the augmented scale bears the same relationship to augmented triads as does the diminished scale to diminished seventh chords. The eight-note diminished scale is made up of two diminished seventh chords related by a whole-step. (i. e., Cdim^7 and Ddim^7). Similarly, the six note **augmented scale** can be thought of as **two augmented triads** a minor third apart, (C+ and Eb+ for example)[1]. Looked at another way, one can build the scale by alternating minor third and minor second intervals until the octave is reached. (Ex.1)

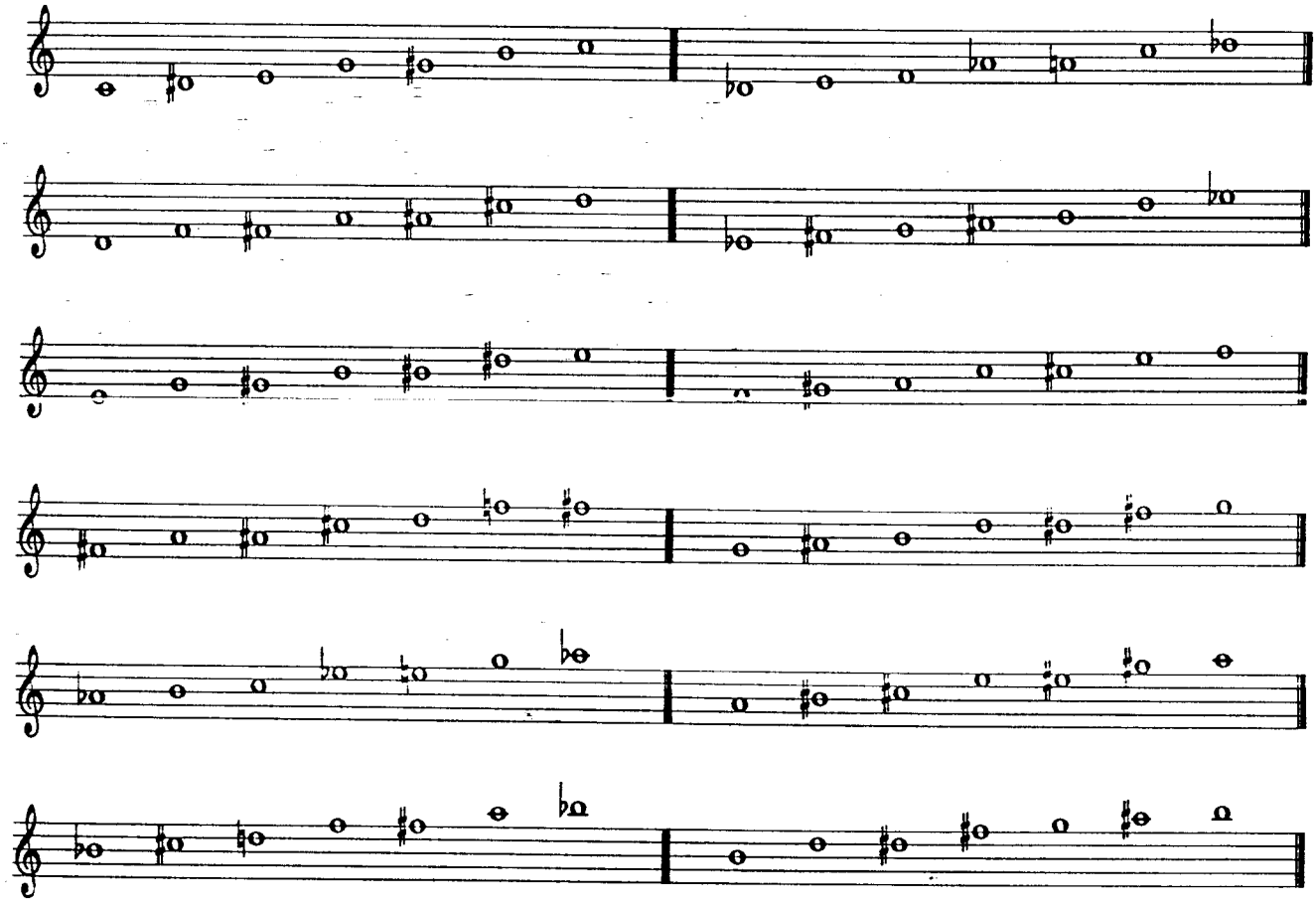
Example 1. Augmented scale construction



1 The symbol used to signify a raised fifth in a chord symbol is a "+" (C+). The abbreviation "aug" is also equally correct (Caug). One frequently encounters "#5" and "+5" in chord symbols such as C$^{7\#5}$, C^{7+5}.

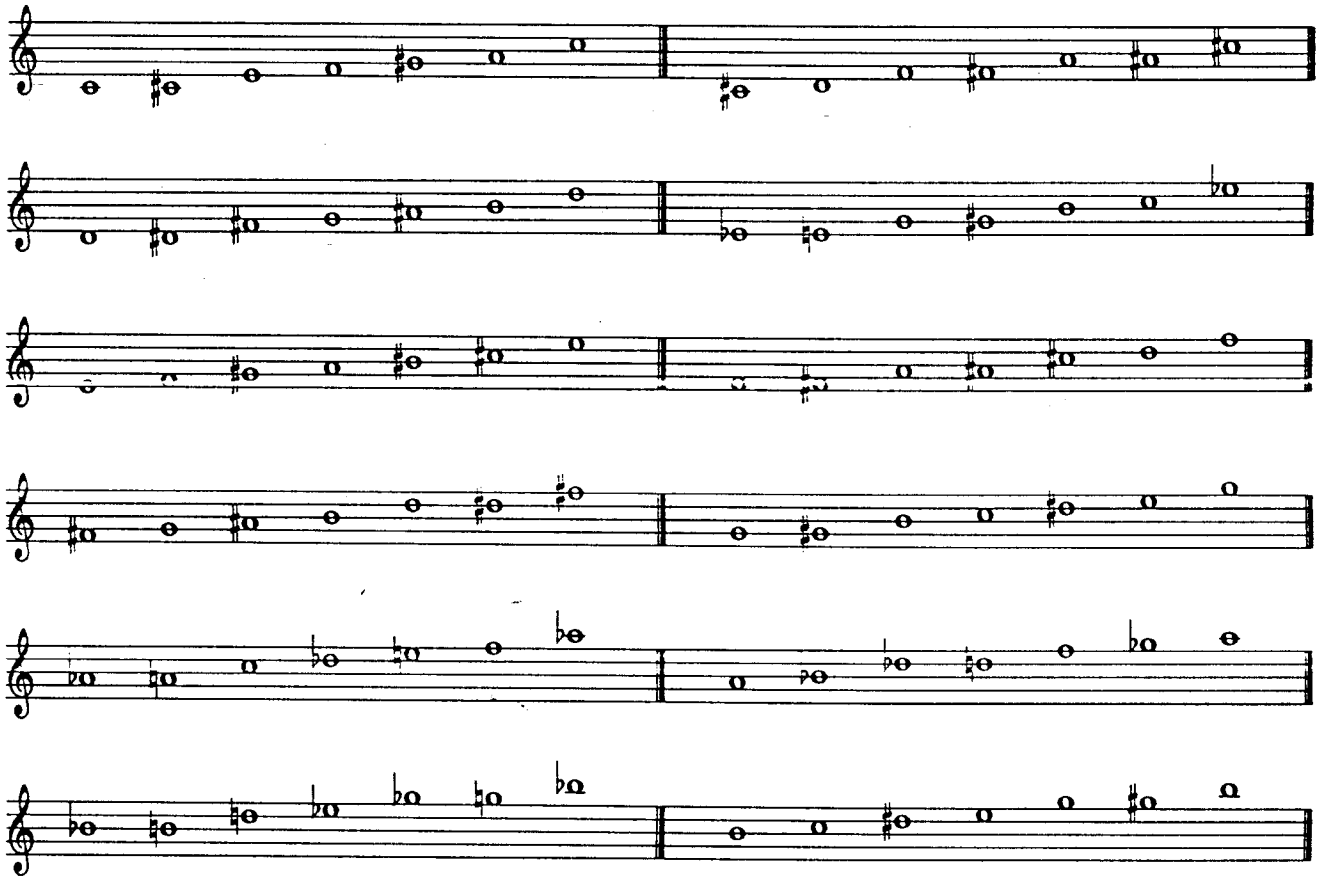
Because of its symmetrical nature, there are only four different augmented scales. (As there are only four different augmented triads.) In other words, the twelve augmented scales use only four different sets of notes. In the example below notice how the scales C, E, Ab are related. (Remember to think enharmonically). Also look at Db, F, A; D, F#, Bb and Eb, G, B. **An augmented scale uses the same notes as the augmented scale a major third away.**

Example 2. Augmented scales constructed on every half step



If the reader is familiar with basic jazz theory he/she will remember that it is accepted practice to call the scale which alternates whole step-half step, the diminished scale. (It begins with a whole step.) It is equally correct and accepted to call the scale which alternates half step-whole step, the inverted diminished scale. (It begins with a half step.) It follows that the same logic can be applied to the augmented scale. Therefore, the inverted augmented scale begins with a half step and alternates half step, minor third. Those readers with an analytical or theoretical bent will have already discovered that the C augmented scale has the same notes in it as the D#, G or B inverted augmented scales.

Example 3. Inverted augmented scales constructed on every half step

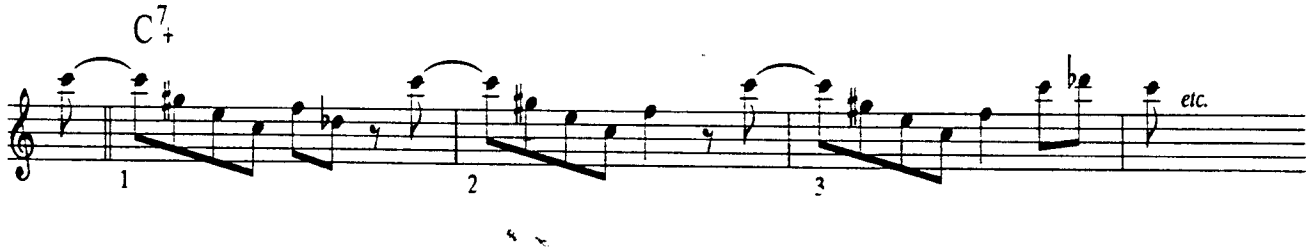


How Composers and Performers Have Used Augmented Material

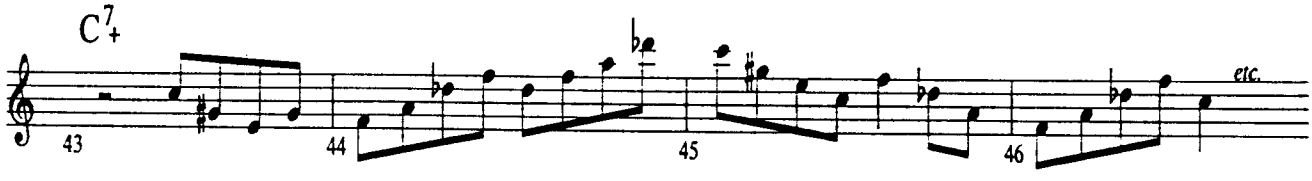
In examining improvised solos it appears to the authors that most soloists have used augmented scales and triads in an intuitive manner. It is doubtful that many of the players cited in this book have systematically tried to codify their use of this material. They know what sounds good to them. It is their ears and intuition that occasionally lead them to the use of augmented material. However, two players that might be an exception to this speculation are John Coltrane and Michael Brecker.

Coltrane's composition *One Down, One Up*[2] is a perfect example of the use of the augmented scale. In fact the entire composition is based on this scale, as is Trane's solo. The tune is thirty-two bars long with the form AABA. Structurally, it is reminiscent of his more familiar composition *Impressions*[3], in that only two chords are used for the entire piece. Instead of minor chords, *One Down, One Up* uses dominant chords. The "A" section is $Bb^{7\#5}$. Similarly, in the "B" section only $Ab^{7\#5}$ is used. Coltrane's first solo after the head is an intense fourteen choruses (6:30 in length). After McCoy Tyner solos Trane re-enters with a second solo. This solo is three minutes long before he states the head out! During this nine and one half minutes of improvising over just two chords, Coltrane almost exclusively uses the Bb inverted augmented scale for the "A" section, and the Ab inverted augmented scale for the "B" section! What makes this even more unique is that other players of Coltrane's generation would usually choose to improvise on material based on the whole tone scale when playing over this chord type. Below are excerpts, in tenor saxophone key, from the head and the solo. (Ex. 4 and 5)

Example 4. First three measures of *One Down, One Up*



Example 5. Exerpt of Coltrane's solo on *One Down, One Up*

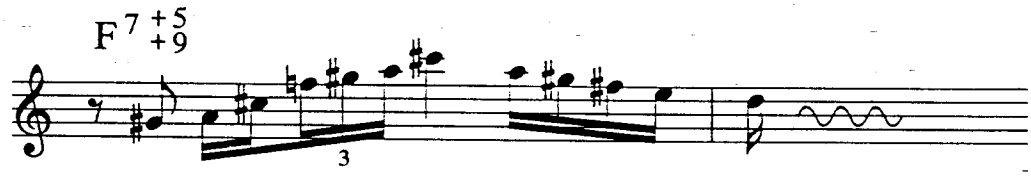


2 *THE MASTERY OF JOHN COLTRANE, VOL. 2. (To the Beat of a Different Drummer);* MCA Impulse 2-4139. A different version can also be found by McCoy Tyner on *RE-EVALUATION: THE IMPULSE YEARS;* MCA-Impulse 2-4156.

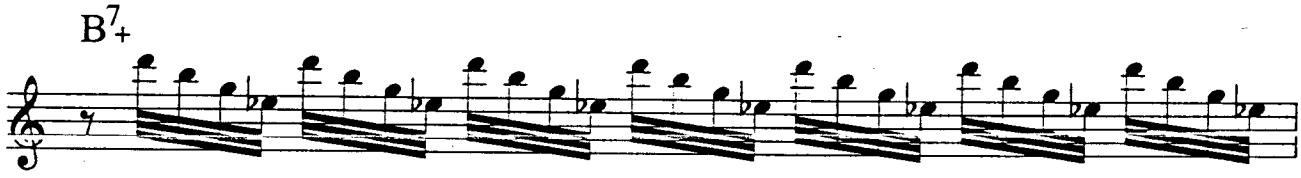
3 *Impressions* is AABA. The A sections are Dmi^7 and the B section is $Ebmi^7$.

Michael Brecker seems to use augmented material relatively often. Over altered dominant chords one of his favorite techniques is to outline a major$^{7\#5}$ chord a major third above the root. In example six, an Amaj$^{7\#5}$ chord is emphasized. Beats one through three of this passage can be analyzed as part of the F augmented scale. In example seven an Ebmaj$^{7\#5}$ chord is outlined. This is could be derived from the B augmented scale.

Example 6. Michael Brecker example from *Freight Trane*[4]

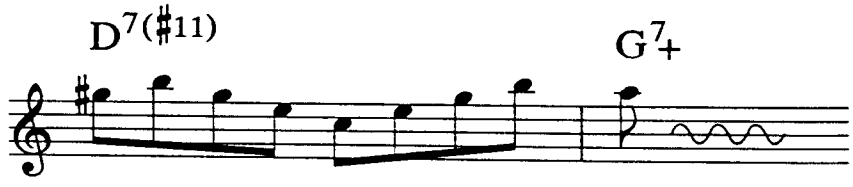


Example 7. Michael Brecker example from *Straphangin'*[5]



Bob Berg occasionally uses this same technique. In the following example from *Steppin'*[6], the chord is D$^{7\#11}$. Berg plays the upper extensions of the chord by outlining a major$^{7\#5}$ chord based on the seventh of D$^{7\#11}$ (Cmaj$^{7\#5}$). This could be derived from the C augmented scale. (Ex. 8)

Example 8. Bob Berg example from *Steppin'*



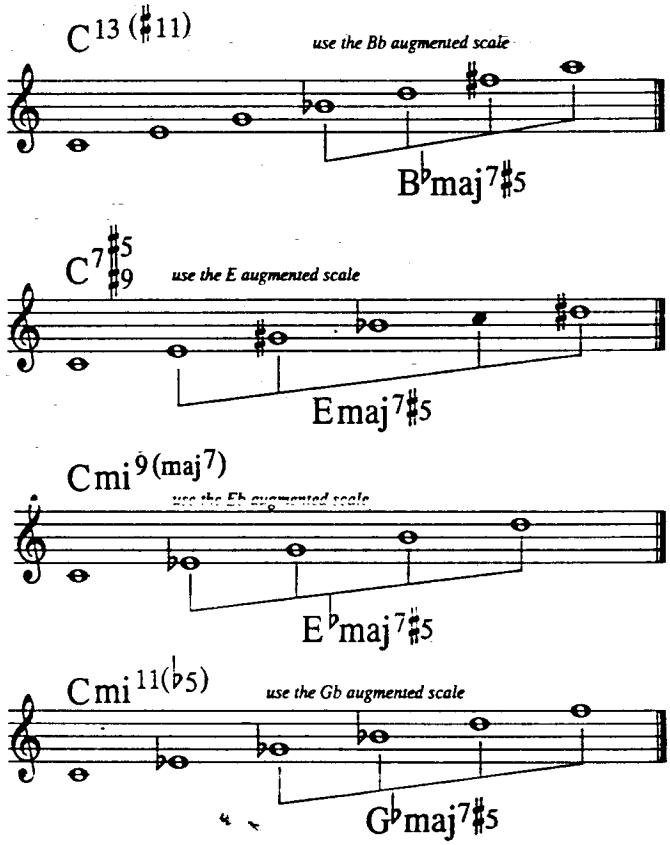
4 *YOU CAN'T LIVE WITHOUT IT* (Jack Wilkins), Chiarascuro, CR-185

5 *STRAPHANGIN'* (The Brecker Brothers), Arista, AL9550

6 *LIVE IN EUROPE (Bob Berg)*, Red Records, VPA-178

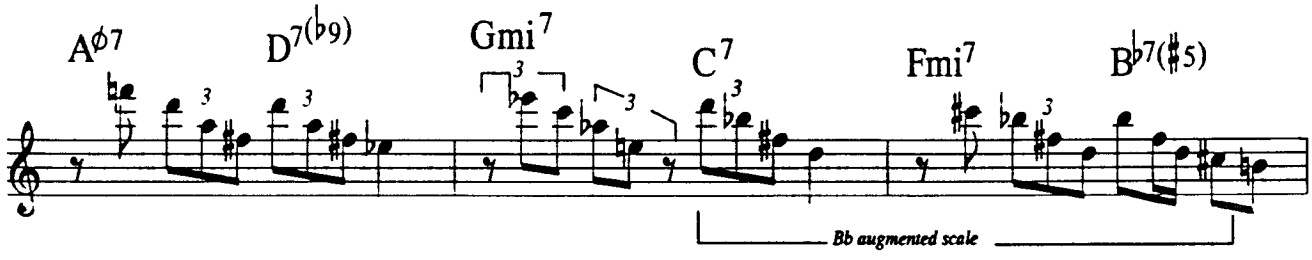
Keeping examples 6, 7 and 8 in mind, observe how the maj$^{7\#5}$ chord is included in the chords outlined below. **From a player's standpoint the augmented scale can be used with any chord which contains a maj$^{7\#5}$ chord.** (Ex. 9)

Example 9. Major seventh, augmented chords contained within other chords



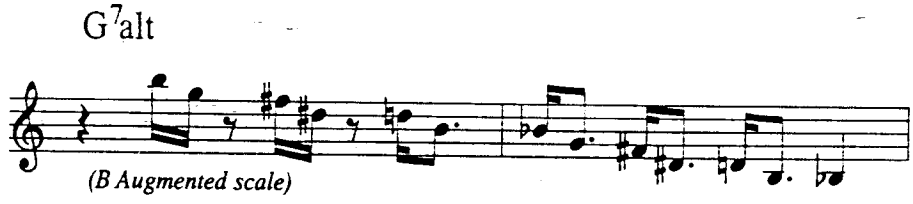
Below is an example played by Michael Brecker. The tune is *Freight Train.* The changes are the same as measures 2-4 of *Blues for Alice* changes. Beginning with the C^7, Brecker plays off of the Bb augmented scale. (Ex. 10)

Example 10. Brecker example from *Freight Train*



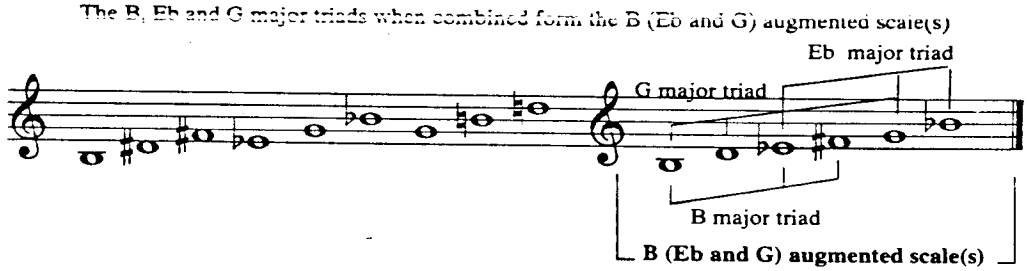
A perfect example of the augmented scale played intact in a solo is Michael Brecker's improvisation on *Not Ethopia* from *Straphangin'* (the Brecker Brothers). (Ex.11)

Example 11. Brecker example from *Not Ethopia*



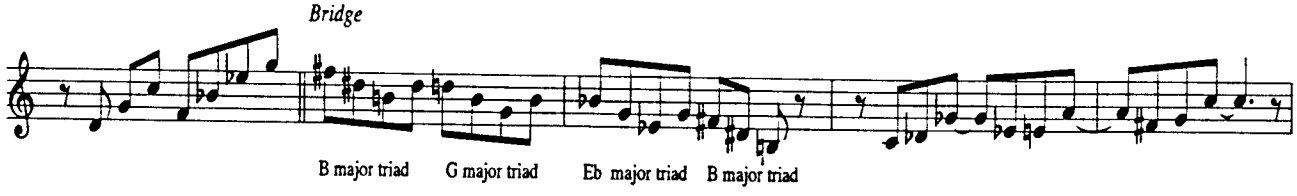
Another way to think of the construction of the scale is as three major triads, a major third apart. When these triads are combined the result is the augmented scale. (Ex. 12)

Example 12. The augmented scale broken down to three major triads



Oliver Nelson used this triadic permutation of the scale as a compositional device in the bridge of *Hoe-Down.*[7] (Ex. 13) Likewise Freddie Hubbard played the same "lick" in his solo on *Survival of the Fittest.*[8] (Ex. 14)

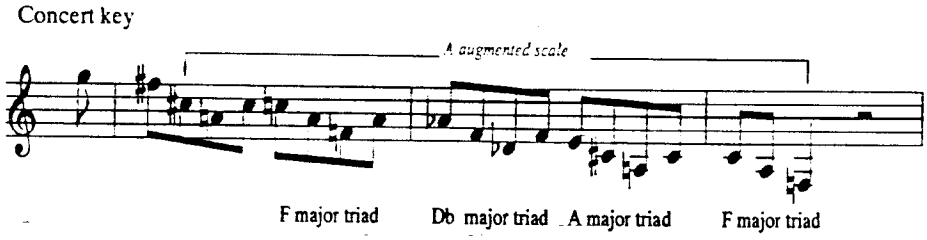
Example 13. Measures 16-20 of *Hoe-Down*



7 *FULL NELSON;* Verve V-8508

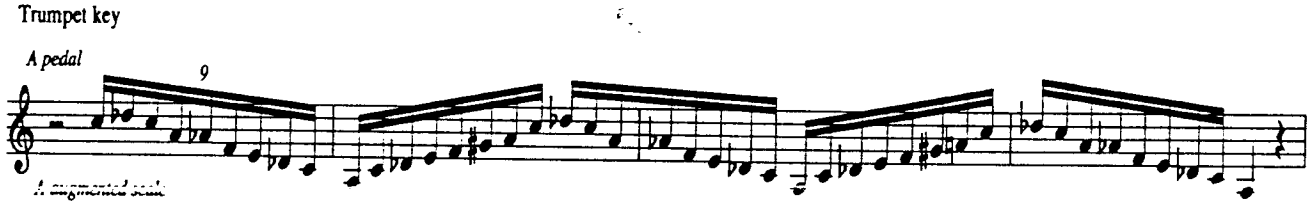
8 *MAIDEN VOYAGE;* Blue Note 84195

Example 14. The augmented scale in Freddie Hubbard's solo on *Survival of the Fittest*

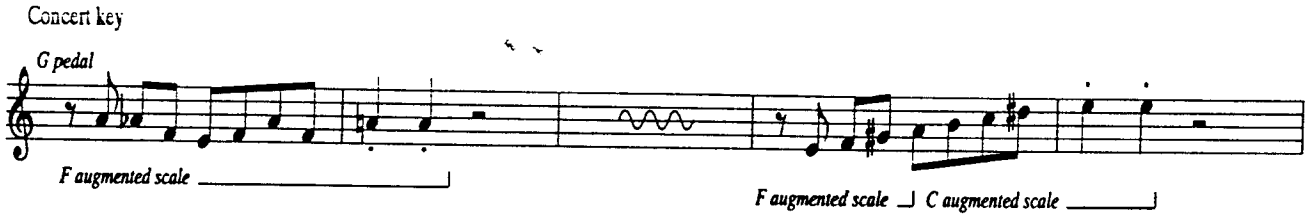


In the 1978 recording by David Liebman entitled *Pendulum*, the title cut is based entirely on a pedal G. All three soloists, Randy Brecker (trumpet), Richie Beirach (piano) and Dave Leibman (tenor saxophone) use the augmented scale during their solos. (Ex. 15,16,17)

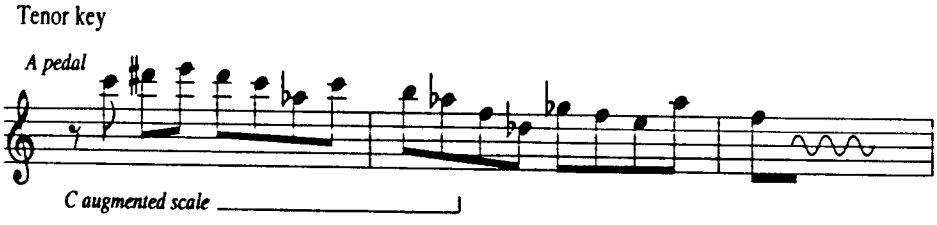
Example 15. Randy Brecker excerpt from *Pendulum*



Example 16. Richie Beirach excerpt from *Pendulum*



Example 17. David Liebman excerpt from *Pendulum*



The augmented scale has not been limited to jazz. Film, "serious" and even pop rock composers have used it. The English composer, Gustav Holst employed it in his suite for large orchestra, *The Planets*. Listen for the celeste in the Neptune movement for an obvious example. "[It] can be found in both the musical and theoretical literature in many sources: Lendvai, for example, refers to it as his '1:3 modal' scale, and finds it in the music of Bartók; it marks the hexachordal division of Schönberg's *Wunderreihe*, of the *Ode to Napoleon* (Op. 41), and it can be found in the late piano sonatas of Scriabin. It is Babbitt's "third-order" all-combinatorial hexachord, Martino's 'Type E.' and Forte's 6-20."[9] Those with an interest in non-jazz music theory may find the study of Robert Wason's article (cited below) and Frederic Rzewski's music ("The People United Will Never Be Defeated!") of benefit. If your research calls for a more passive approach, try listening carefully to those "spooky" sections in film and television scores. Often the augmented scale is being used. Or—check out the piano introduction to Frank Zappa's, *Little House I Used To Live In*[10]. Here he breaks up the augmented scale into two augmented triads a minor third apart and stacks one on top of the other. Other examples of augmented material in improvised solos can be found in the music of David Liebman, Jerry Bergonzi and Warren Bernhardt. Listen to Liebman's *Third Visit*[11], Bergonzi's *Essentials*[12] and Bernhardt's solo on *Modern Times*[13] from the Steps Ahead album of the same name.

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9 Robert Wason, "Tonality and Atonality in Frederic Rzewski's Variations on *The People United Will Never Be Defeated!*". Perspectives of New Music, Vol. 26, No. 1 (Winter 1988), p. 121.

10 *BURNT WEENY SANDWICH*; reissue 10/91, Barking Pumpkin D21S-74239

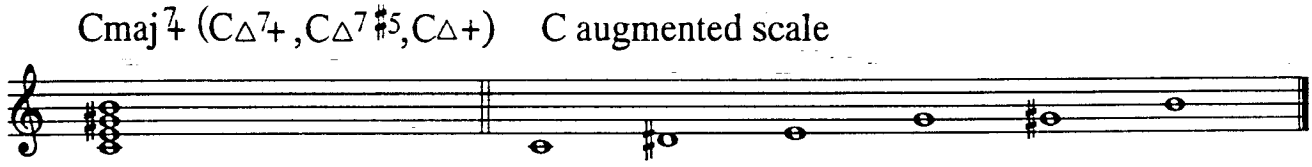
11 *THE DUO LIVE*, Advance Music 86001

12 *THE JERRY BERGONZI QUARTET FEATURING BRUCE GERTZ*, Not Fat 3

13 *STEPS AHEAD, MODERN TIMES*, Elektra Musician 60351-2

How You Can Use The Augmented Scale

One of the most straightforward applications of the augmented scale is to use it on major 7, #5 chords. From the example below it can be seen that only the D# and G are not full-fledged chord members. However, those two notes can be thought of as passing tones or under-auxiliaries to the E and G#.



This brings us to an important point. Most people would agree that a major scale sounds quite good when played over a major chord. But when the notes are looked at on an individual basis some will be found to be more dissonant than others. Let's take an improviser's point of view and analyze each note of the C major scale as if it were to be played over a C major chord.

- C (root) A good note choice if you are a bass player, but not so good if you are improvising. Not colorful enough.
- D (ninth) A colorful note choice. It's drawback is that it doesn't express the harmony or function of the chord.
- E (third) An excellent note choice that tells us the quality and function of the chord i. e., whether it is major or minor. (In this case it is major.)
- F (fourth) The weakest note in the entire scale. It sounds "wrong" if sustained against the chord, i. e., the F must resolve to E.
- G (fifth) It doesn't sound bad, but it is not as colorful as the sixth or ninth. It is usually the first note to be omitted in a voicing.
- A (sixth) A colorful note choice. It's drawback is that it doesn't express the harmony or function of the chord.
- B (seventh) An excellent note choice that tells us if the chord wants to move to another chord or stay where it is. (In this case it wants to stay where it is. If the note was Bb it would want to move.)

Just because a certain scale is said to work over a certain chord, it does not mean that all the notes in that scale are equal. Some even sound downright "bad and wrong" when landed on and sustained. This is certainly the case with the augmented scale. Therefore, it's use is not for the faint of heart. The player must use his/her intuition and ear, knowing that, on an individual basis, there are always two notes in each scale that will "clash" if not played as passing tones.

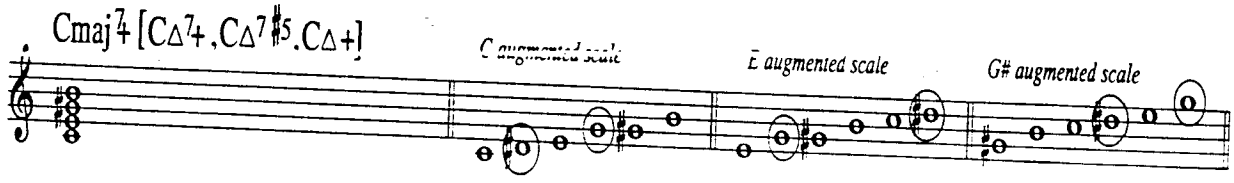
With this fair warning it is now time for the part that every jazz theory/exercise book must have—**RULES.**

Rules For Using The Augmented Scale

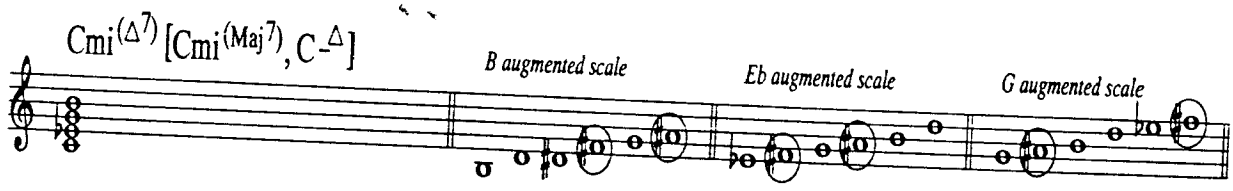
The reader should realize that there are many ways to conceptualize the use of scales over chords. Coltrane, for example in *One Up, One Down* probably derived his harmonic material from the inverted-augmented scale. Others cited in this book may have simply used their intuition and ear. It is not the authors' purpose to speculate on what others think about when they improvise. What we have observed is that many players use this scale in different ways. In an effort to help the student we have devised a set of rules. Use them as a starting point and remember that rules are made to be broken.

The augmented scale is a possible scale choice over any chord that contains an augmented triad within it. Since the scale is symmetrical there will be three starting notes available, but the end result will be the same. In other words if a C augmented scale sounds good over a given chord, then the E and Ab augmented scales will also work. In the examples that follow some notes are circled. Unless a strong dissonance is desired avoid stopping on them. These notes should be treated as passing tones.

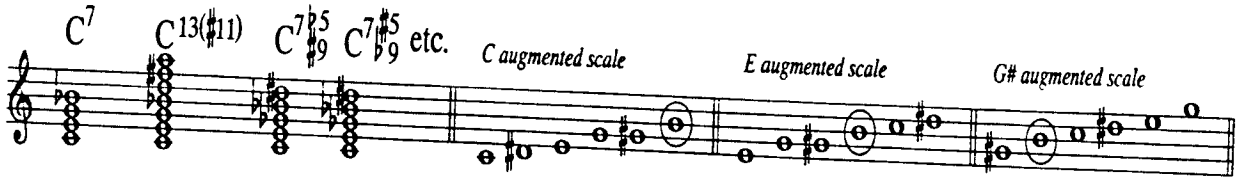
- **For maj$^{7\#5}$ chords, build an augmented scale on the root (third or raised fifth)**



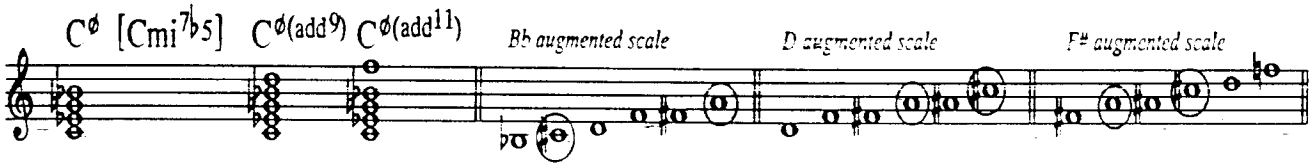
- **For min/maj^{7} chords, build an augmented scale on the major seventh (minor third, perfect fifth)**



- **For dominant chords in general, build an augmented scale on the root (third or raised fifth)**



- **For half-diminished chords, build an augmented scale on the seventh (second or raised fourth).**



Exercises, Patterns and Etudes

An effective way to get the sound of a scale in your ears and the technique to play it under your fingers is to create patterns from the triads and/or sevenths chords which are found in the scale. This technique is used in the exercises that follow (nos. 1-9). They cover all twelve keys. As discussed earlier, because of its symmetrical nature, there are only four different augmented scales. Therefore, when your fingers learn C, they also know E and G#. If you learn these patterns from the four lowest notes on your instrument, your fingers will have practiced all the possible finger combinations for all twelve keys. However, hours of repetition must follow until you can easily play these patterns starting on any note.

With the theoretical discussion in the opening pages of this book and with the introductory exercises as models it is hoped that the reader would be able to devise his/her own practice patterns. That, of course, is the goal and the student should aim for it. In the meantime use the patterns that begin on page 23 as a starting point. They are given without rhythmic variation and if played verbatim during the course of a solo they will sound stiff, unmusical and "plugged in." It is up to you to vary them in ways that create music. This is really what we all should be striving for. Assimilate the material, internalize it, then make it your own. Certainly everyone uses "licks." Even classical composers like Mozart, Bach, Beethoven, (you name one) had their "licks". But what master composers and improvisers all learn how to do is to create art from basic material.

The sentence your are presently reading should make sense to you.

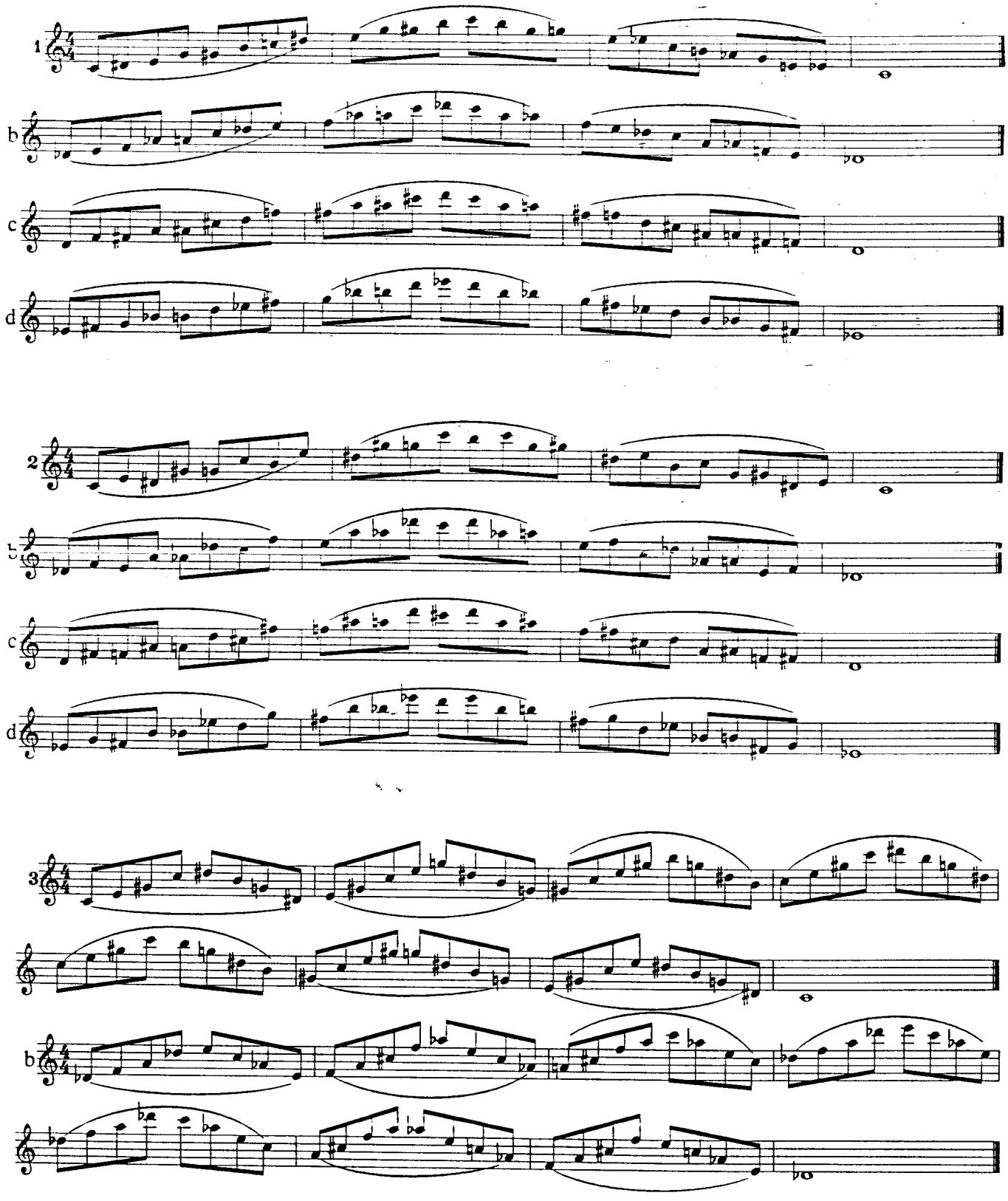
Does this one?

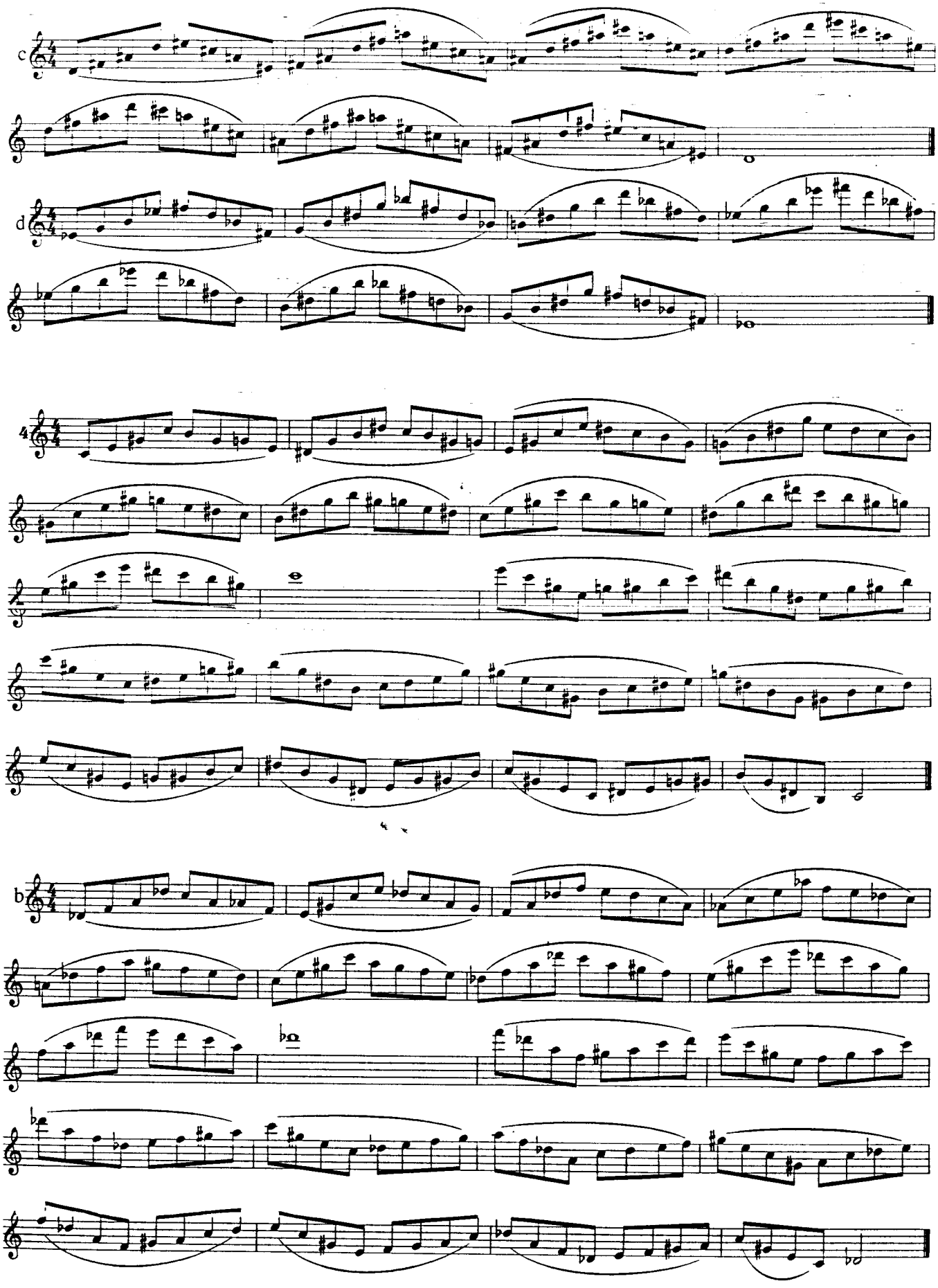
To sense you are presently make the sentence you should reading.

Both sentences use exactly the same words, but the second one is garbled. The difference between a good improviser and a weak one is often exactly the same as the difference in the above two sentences. If you want to be an accomplished improviser you must learn to make musical sense out of harmonic, melodic and rhythmic material. Learn some words, construct some sentences. Get some paragraphs that have meaning--then tell a story.

The etudes which begin on page 36 attempt to exploit and to demonstrate in a musical way some ways to use this scale in jazz. They simulate improvised solos and were written with the saxophone in mind. Other instrumentalists may have to make adjustments in range.

Introductory Exercises

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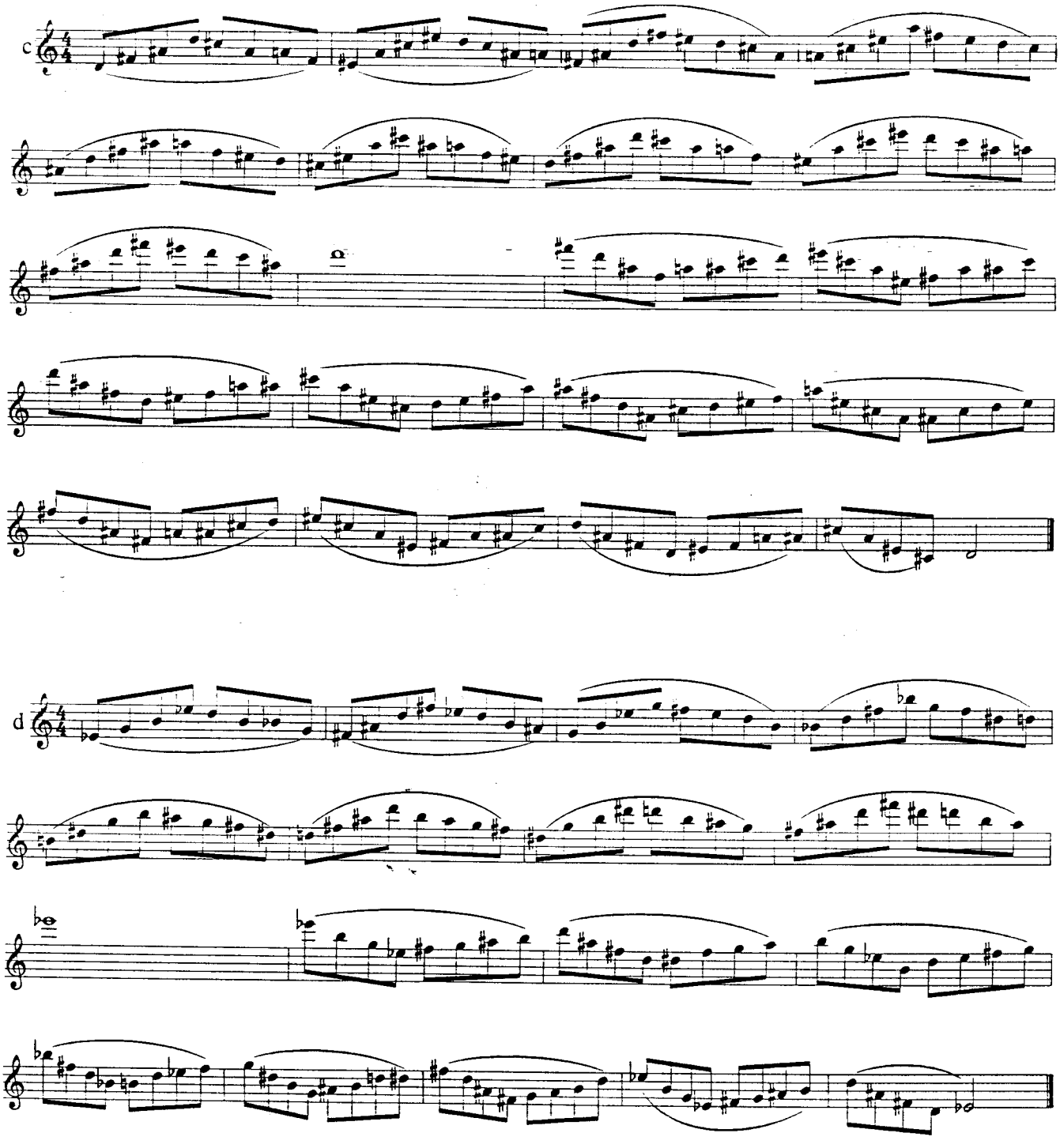
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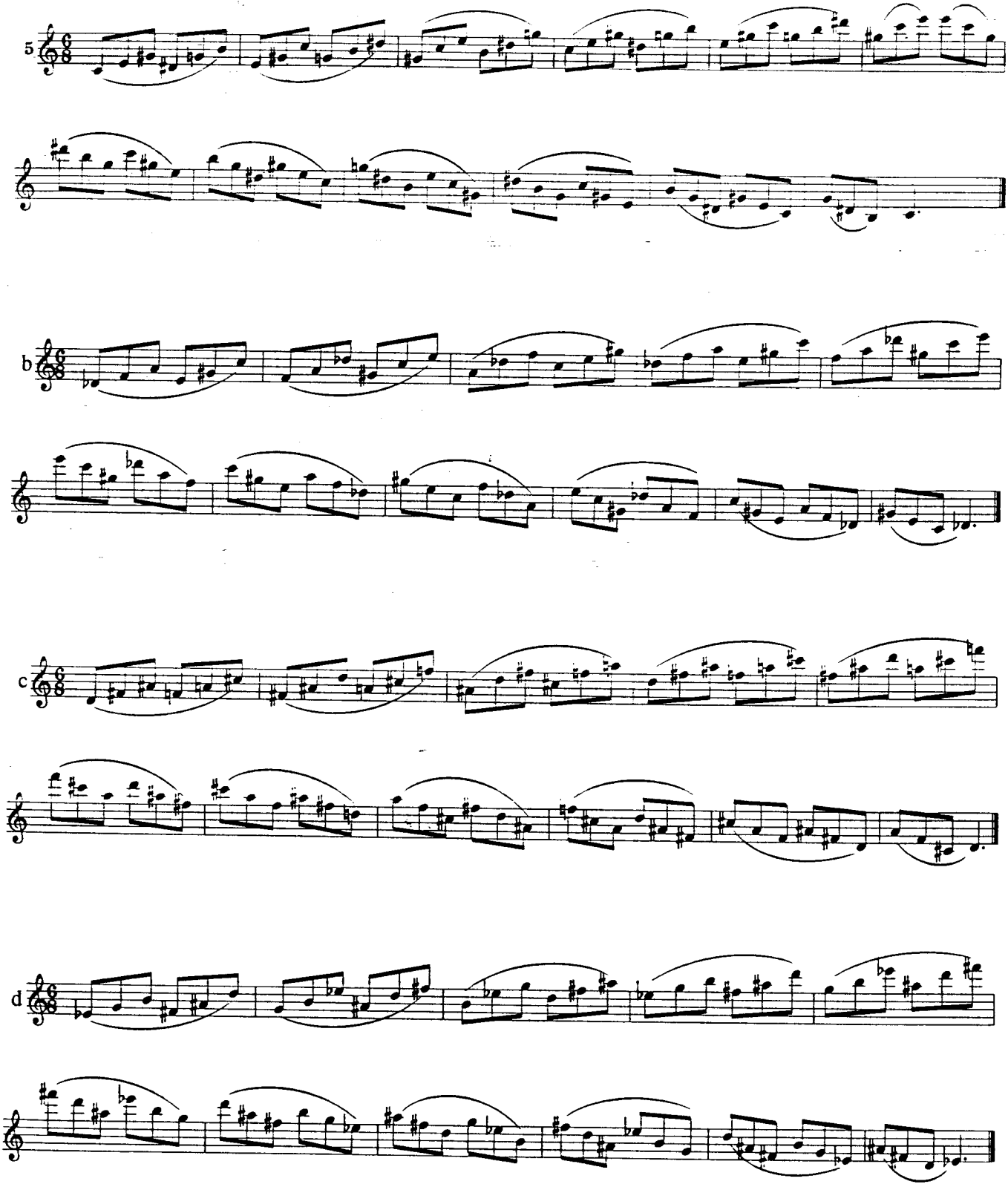
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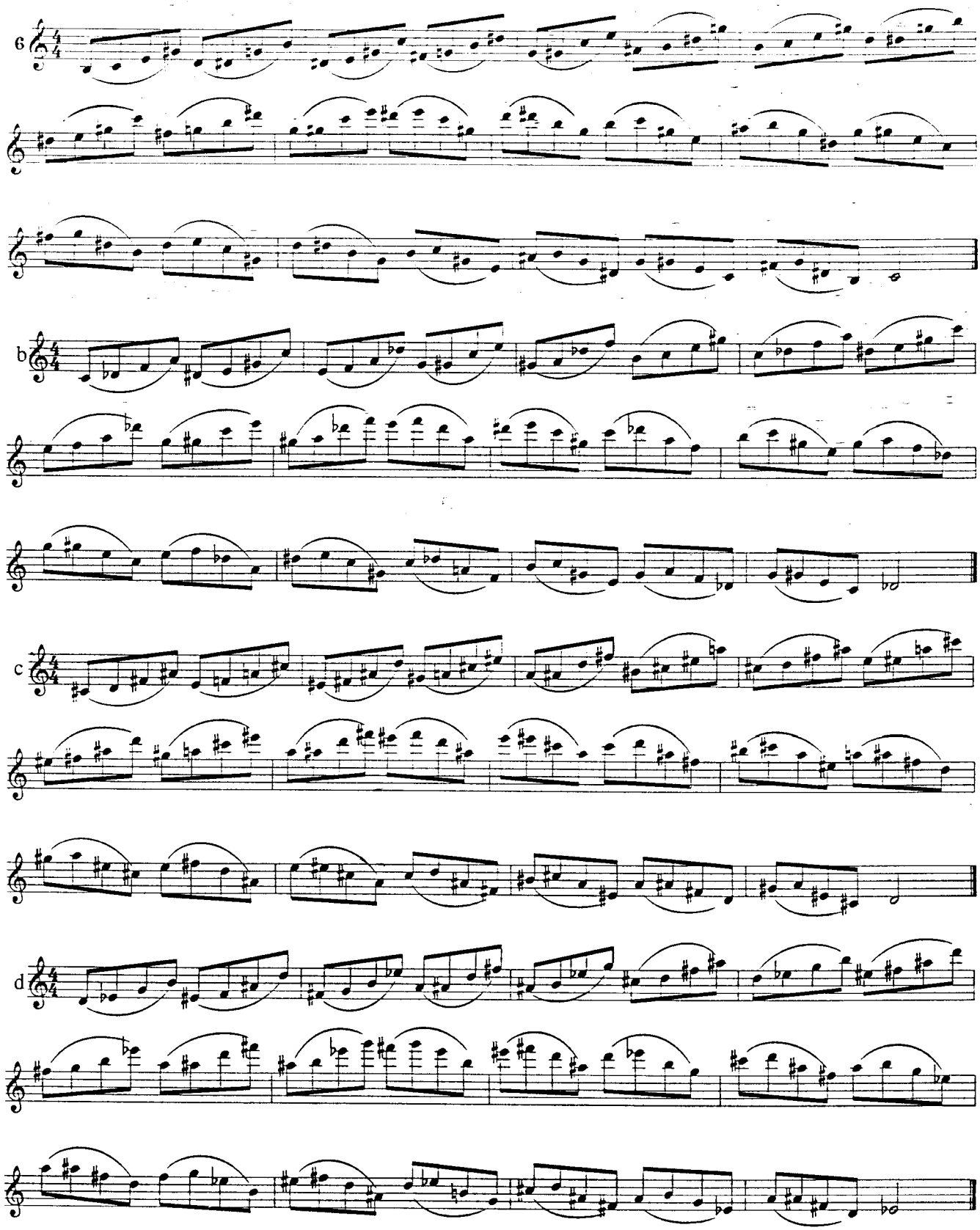
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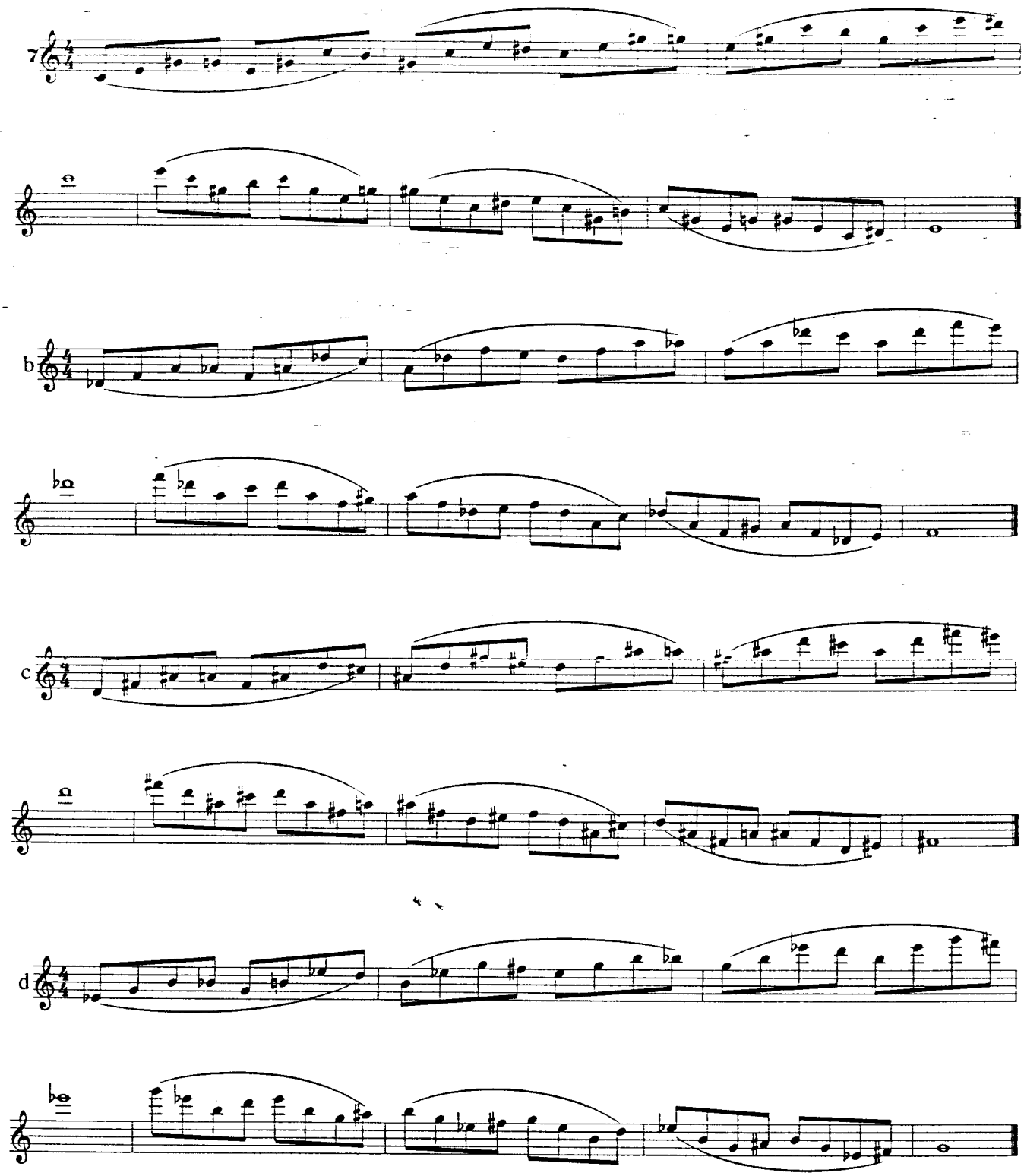
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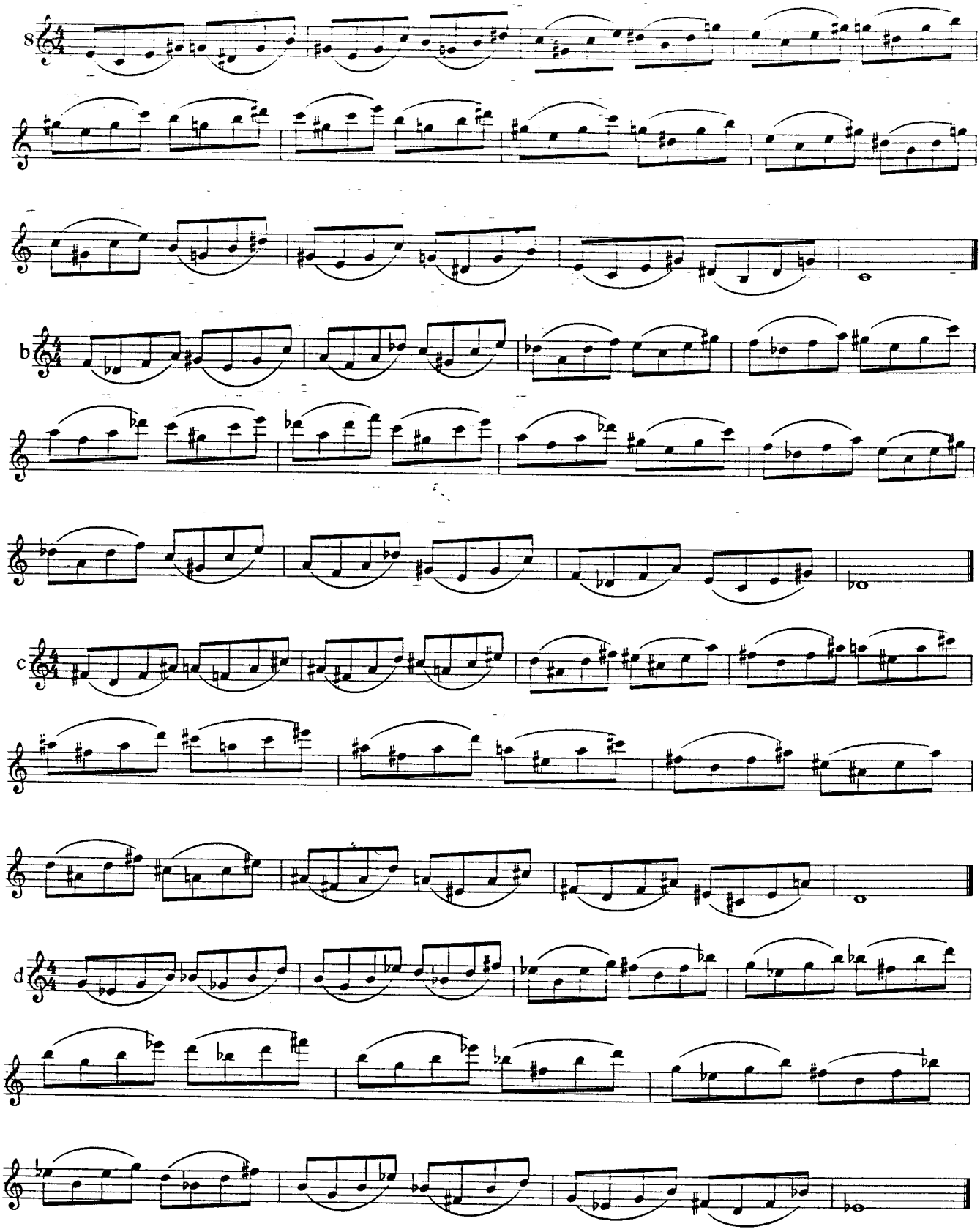
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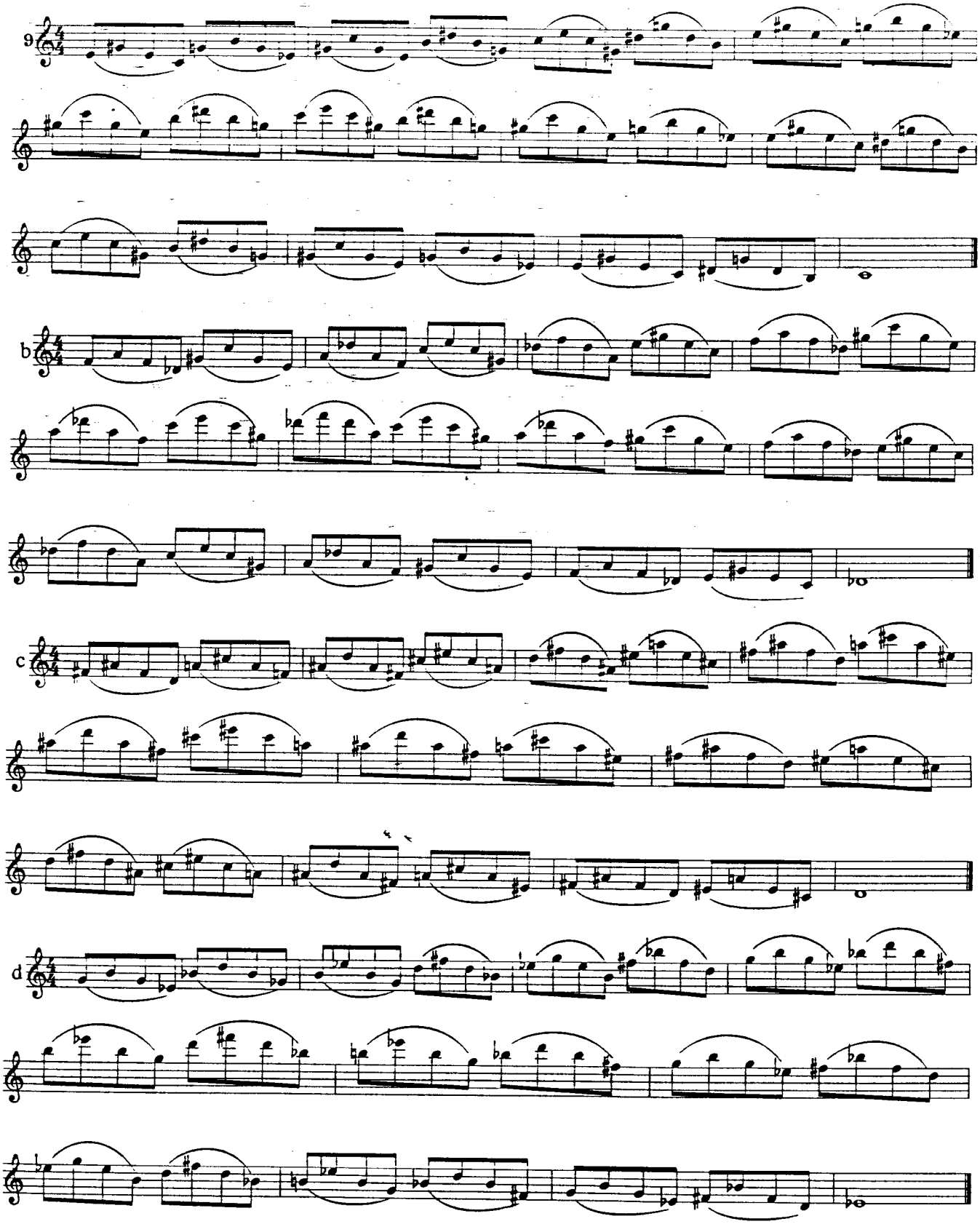
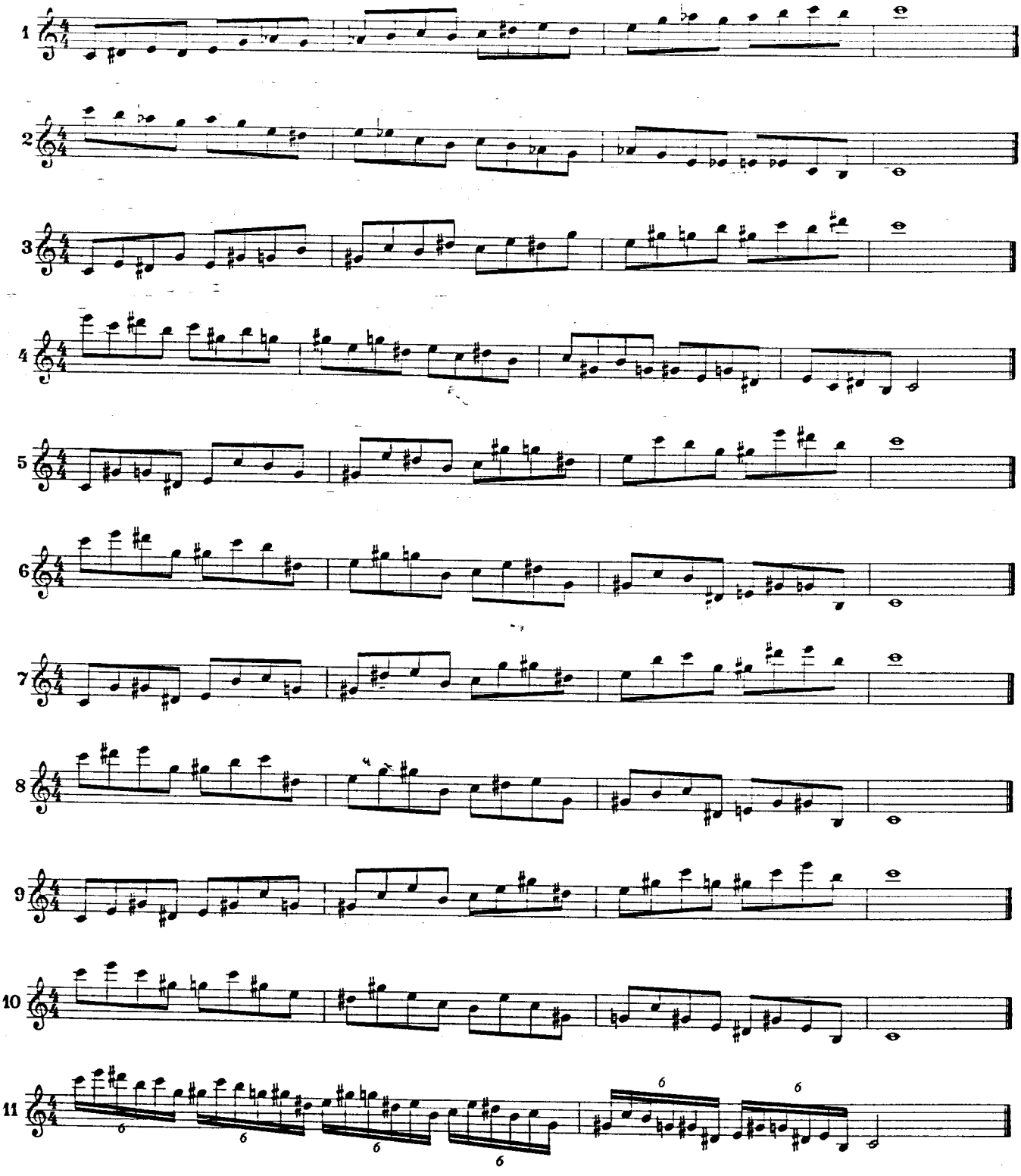
c
d


9
b
c
d

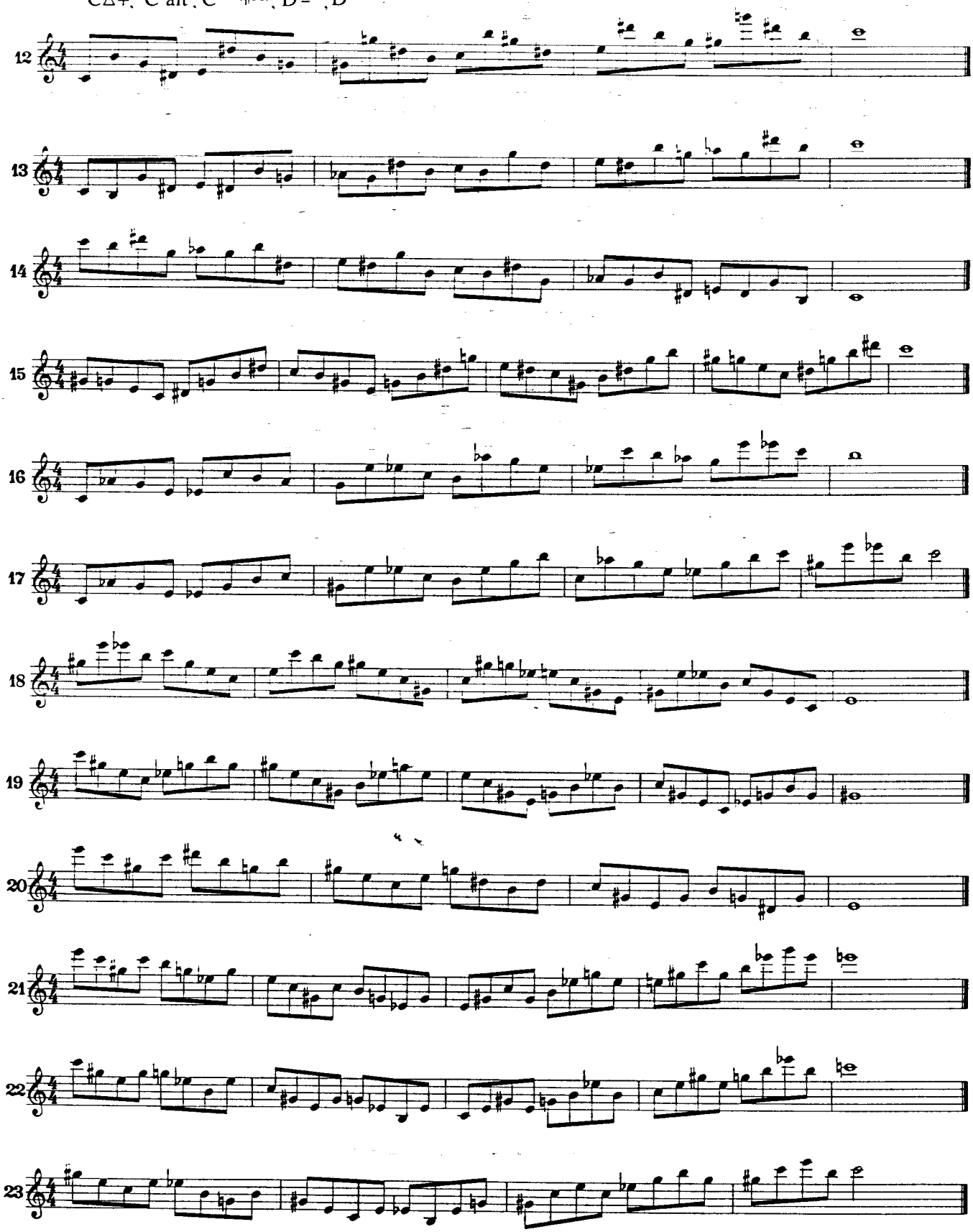
DIATONIC PATTERNS*

C△+, C^{7}alt, C$^{13(\sharp 11)}$, D$^{\flat}$$_{-}^{\triangle}$, D$^{\phi}$

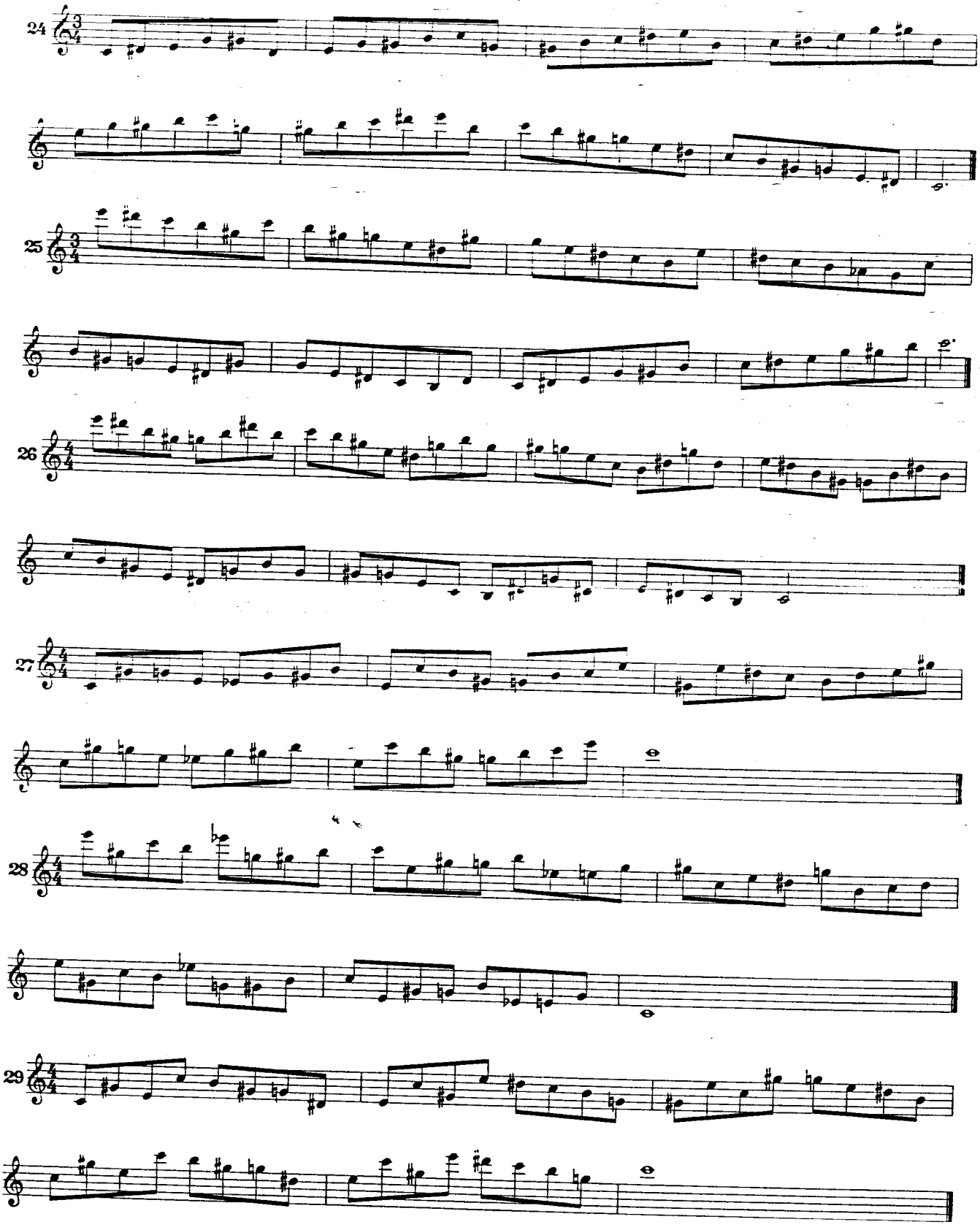


* These patterns are derived from the C augmented scale. Transpose them to all keys.

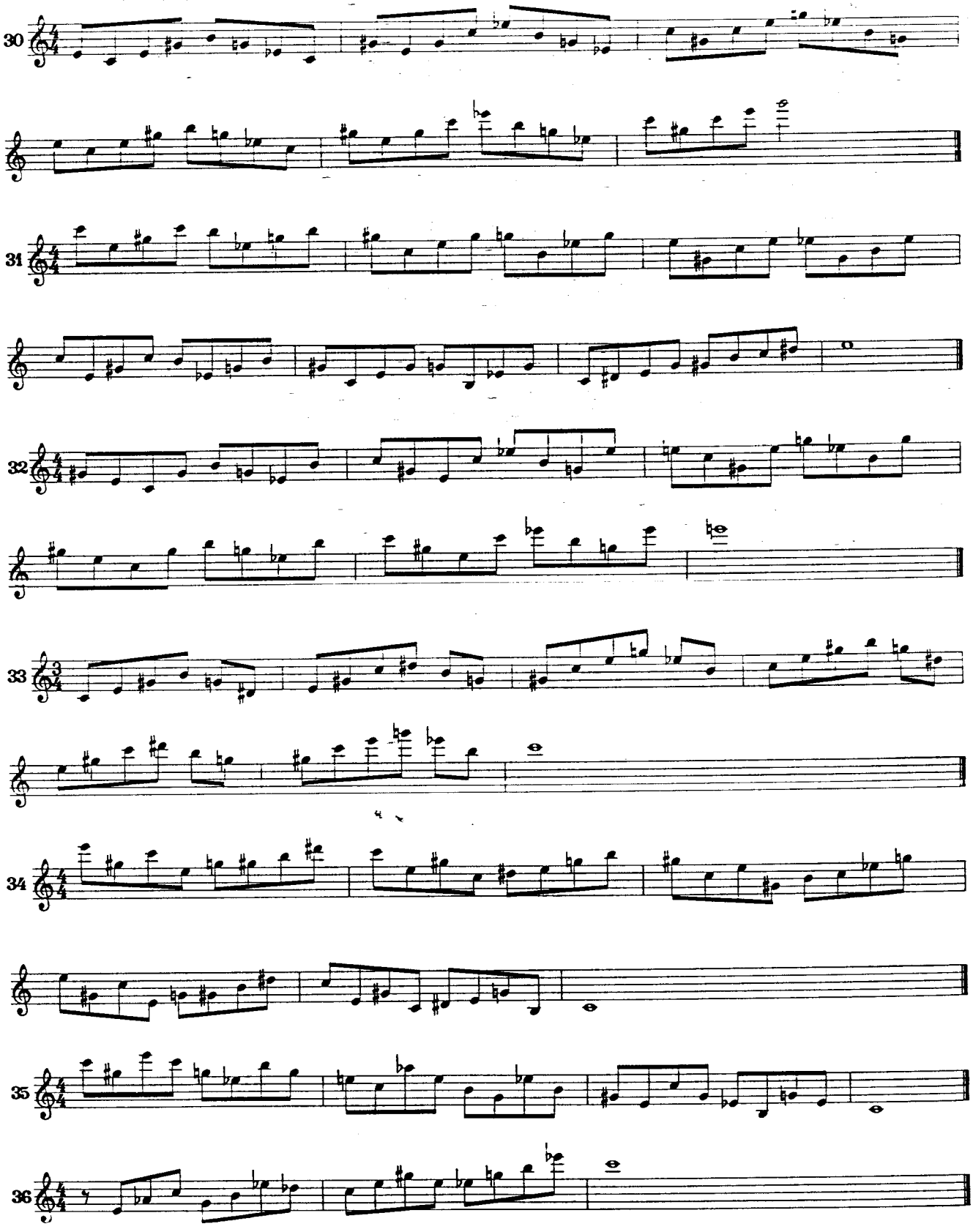
C△+, C7alt, C13(♯11), D♭△, Dø



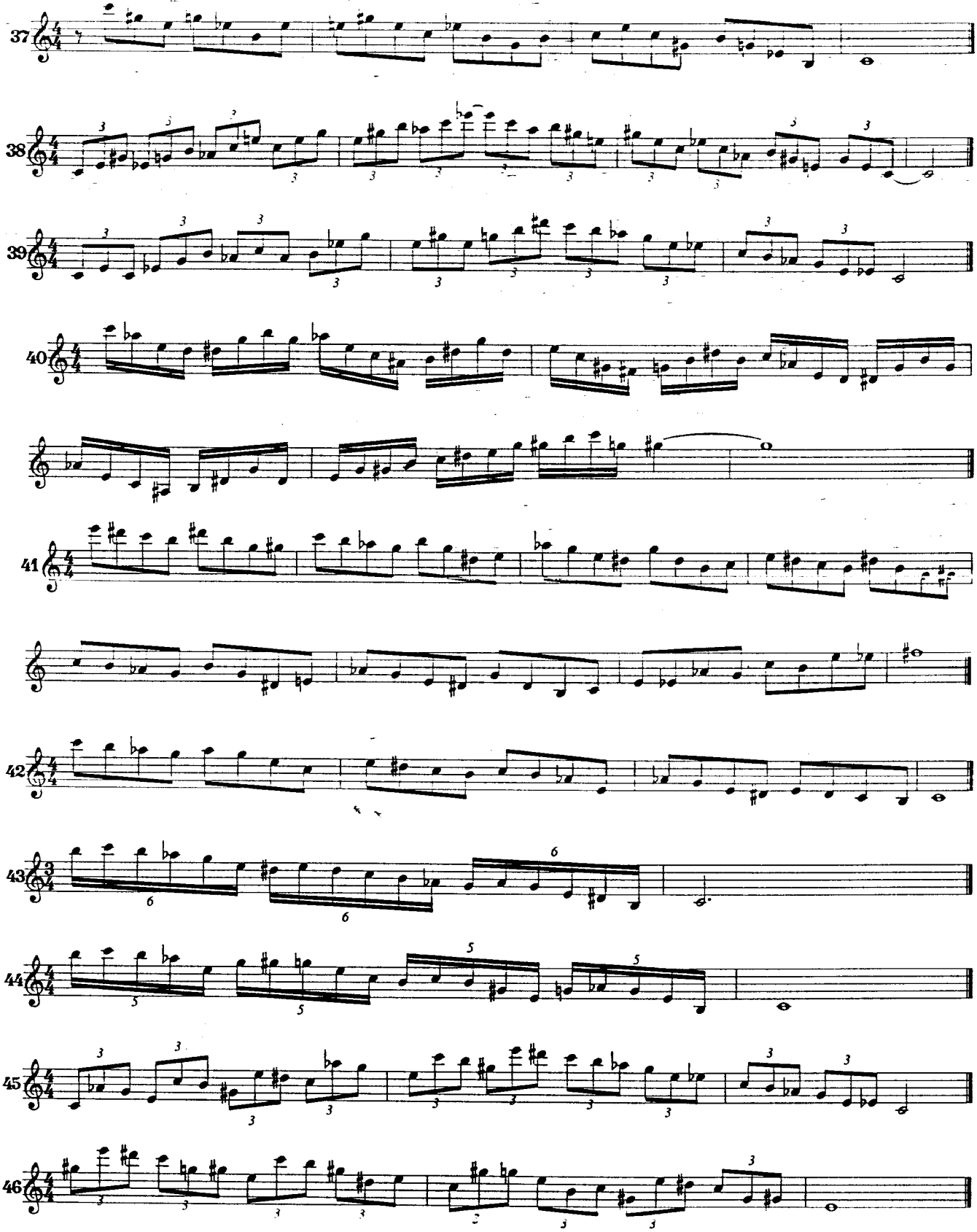
C△+, C7alt, C13(♯11), D♭△, D∅



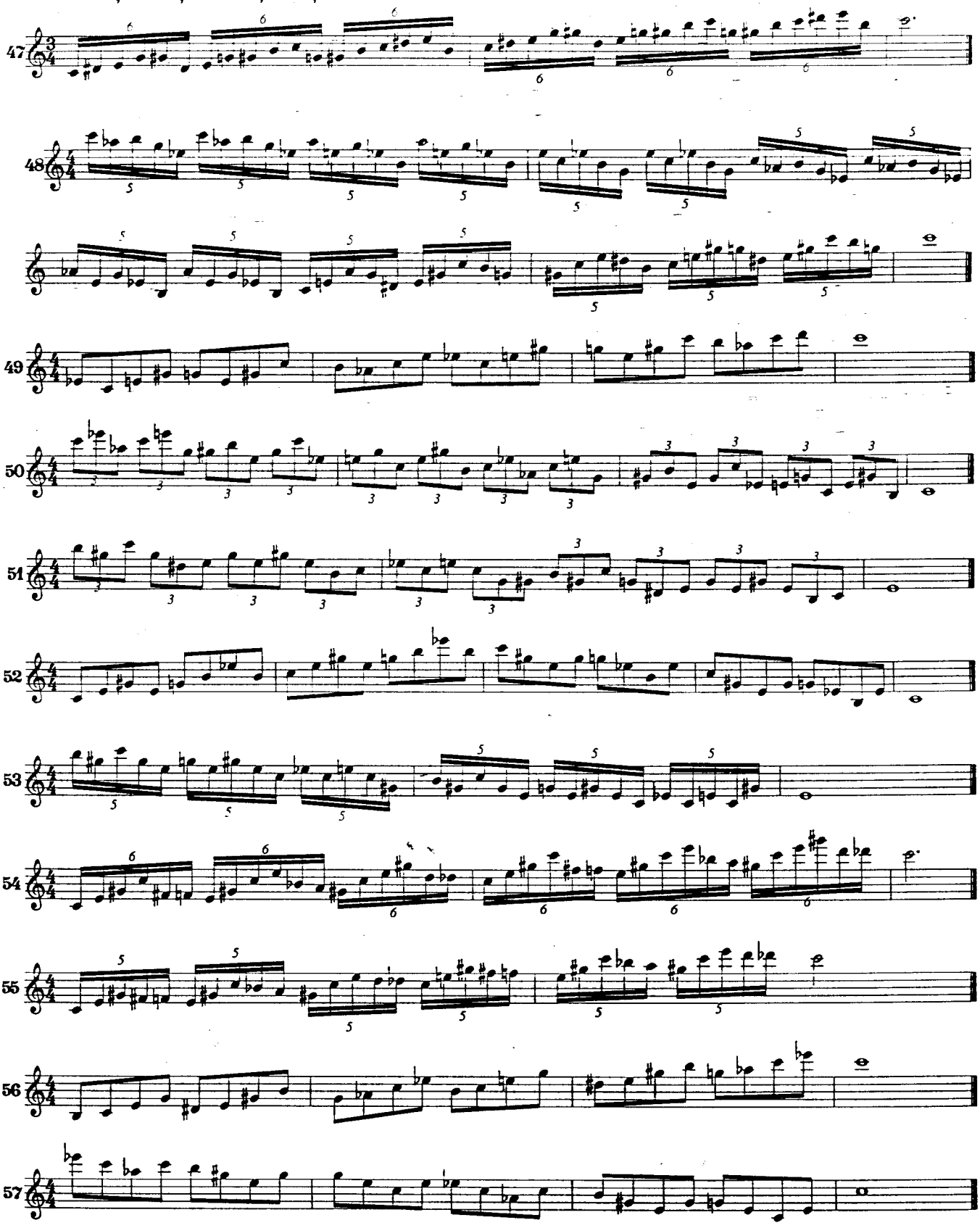
C△+, C7alt, C13(♯11), D♭-△, D♭



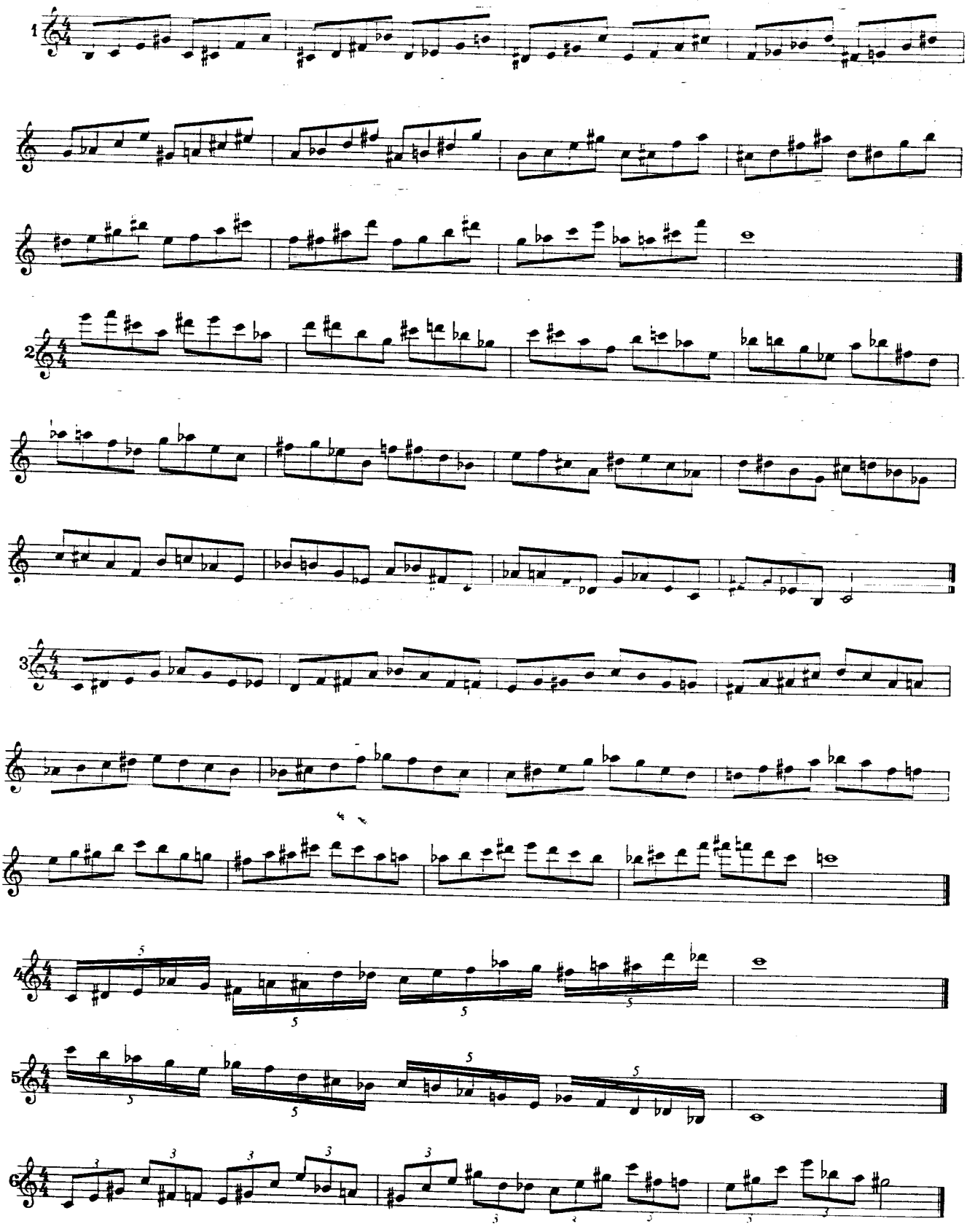
C+, C7alt, C13(♯11), D♭△, D♭



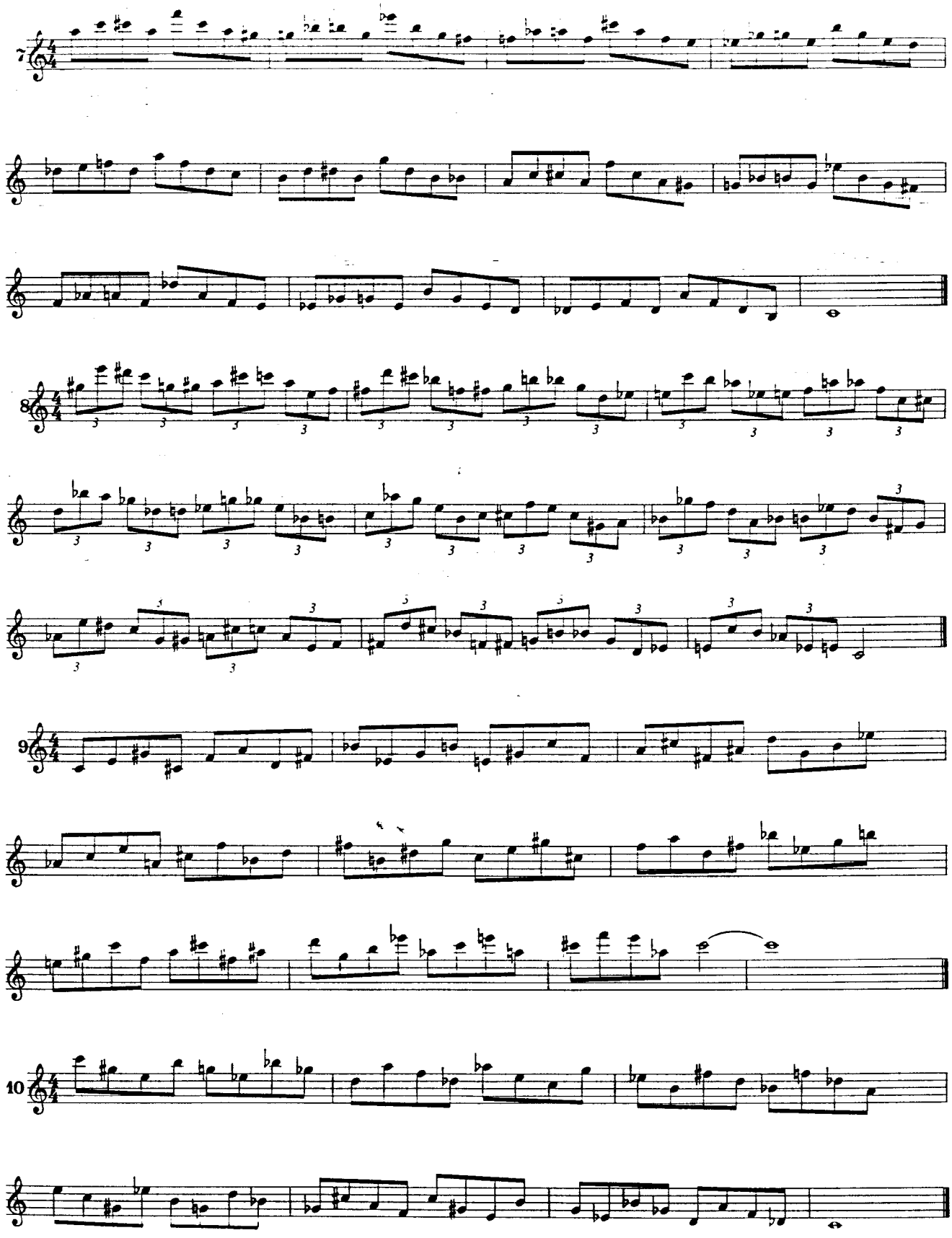
C△+, C7alt, C13(♯11), D♭-△, Dø

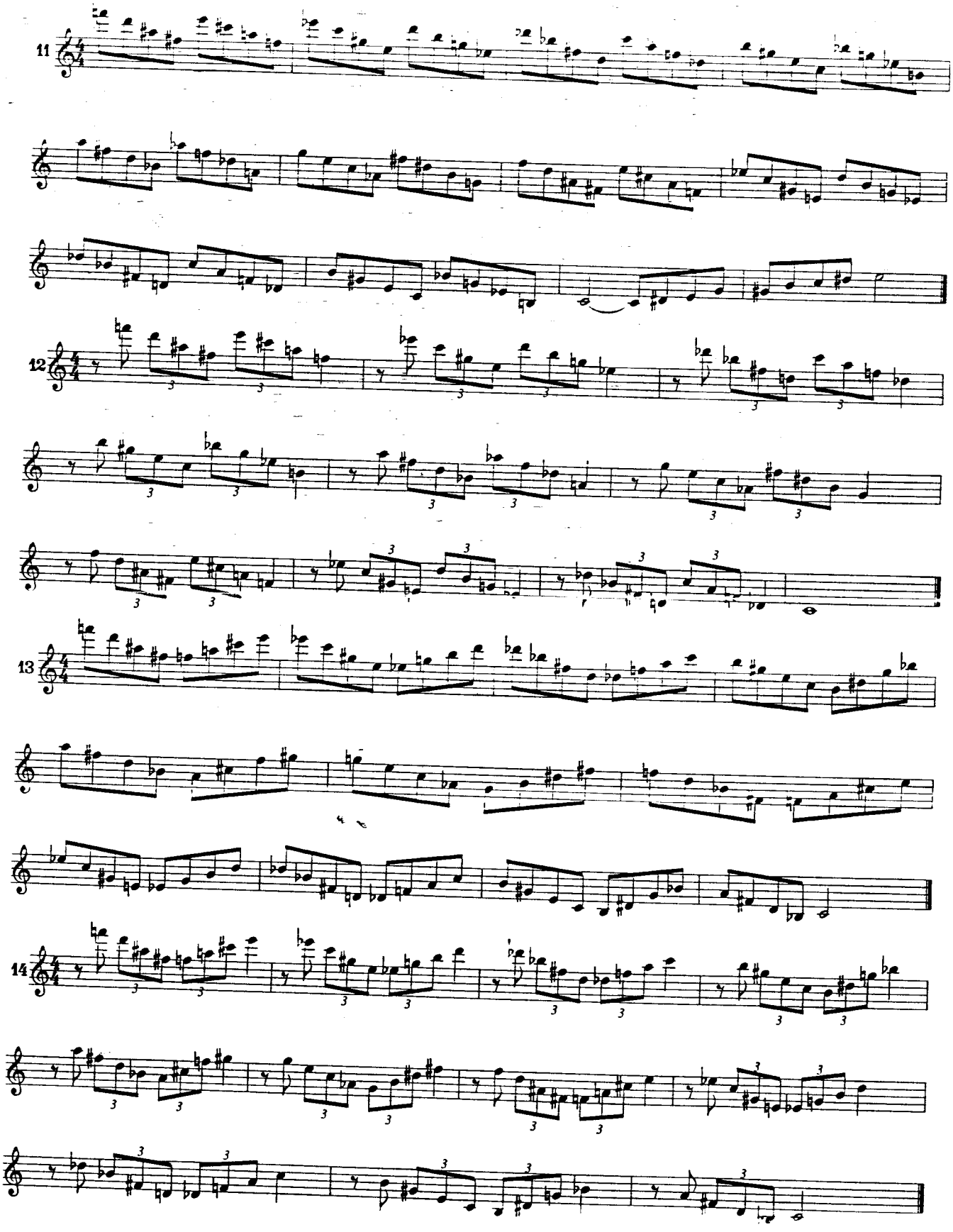


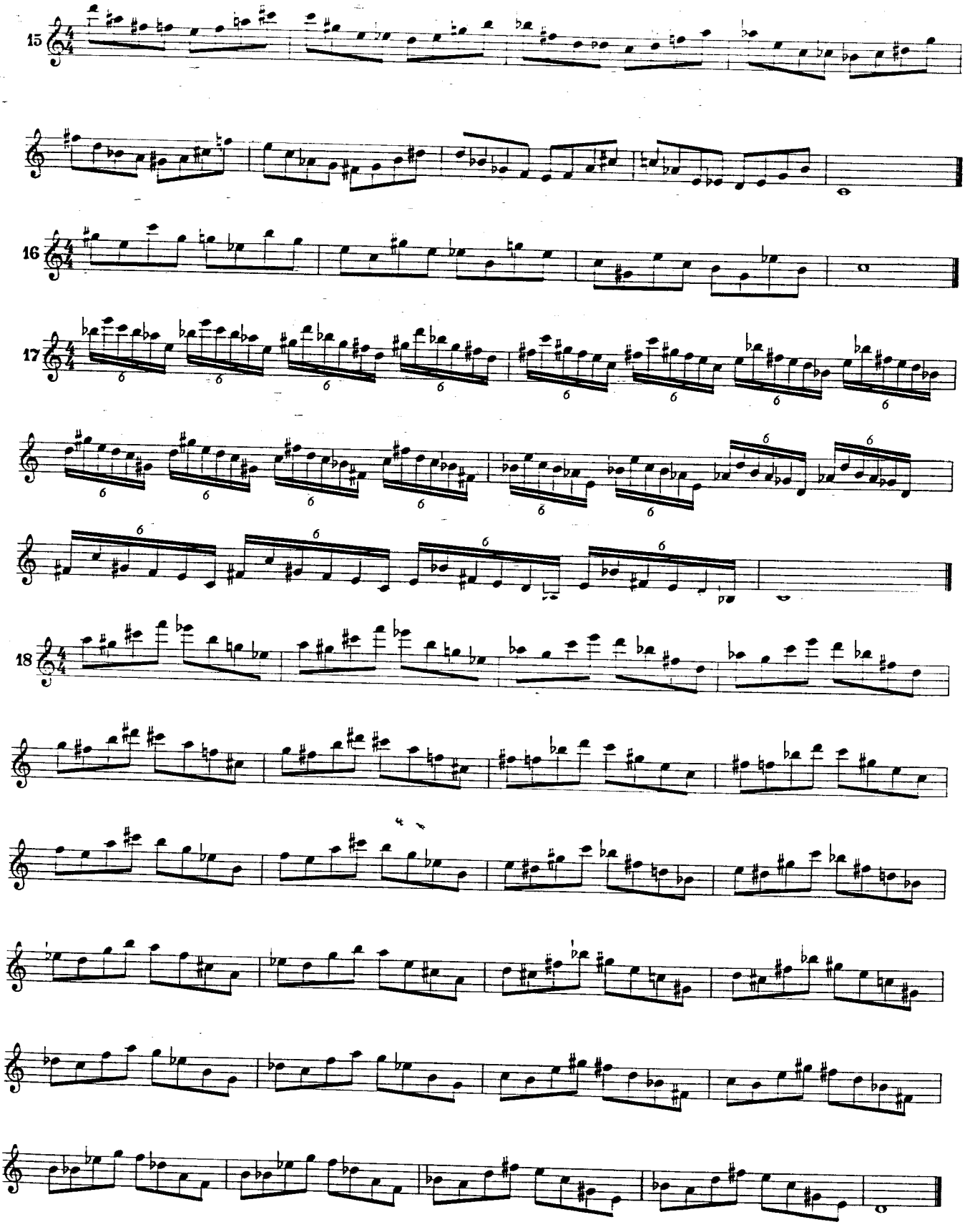
CHROMATIC PATTERNS*

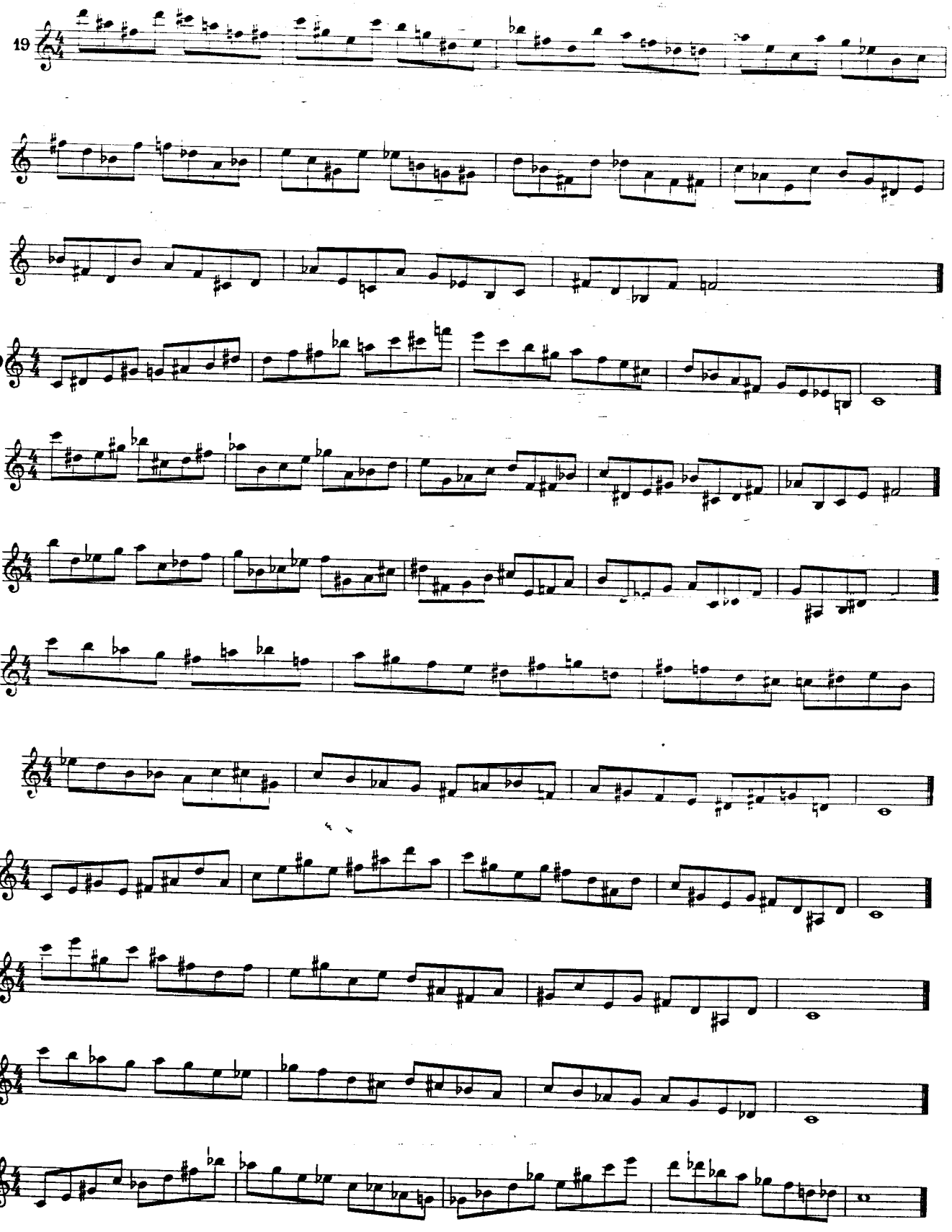


* *These patterns combine augmented scales built on all scale degrees. Transpose them where applicable.*

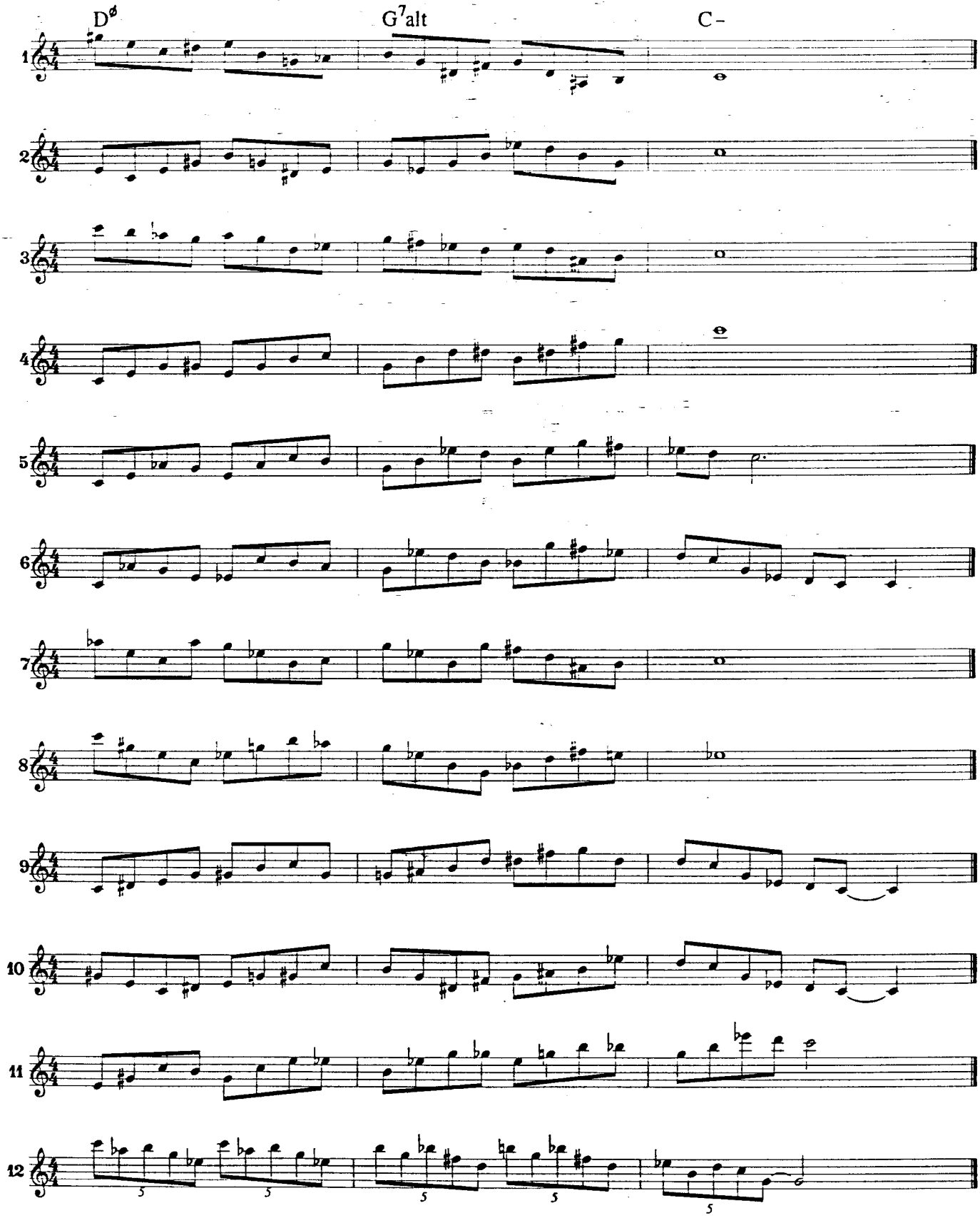


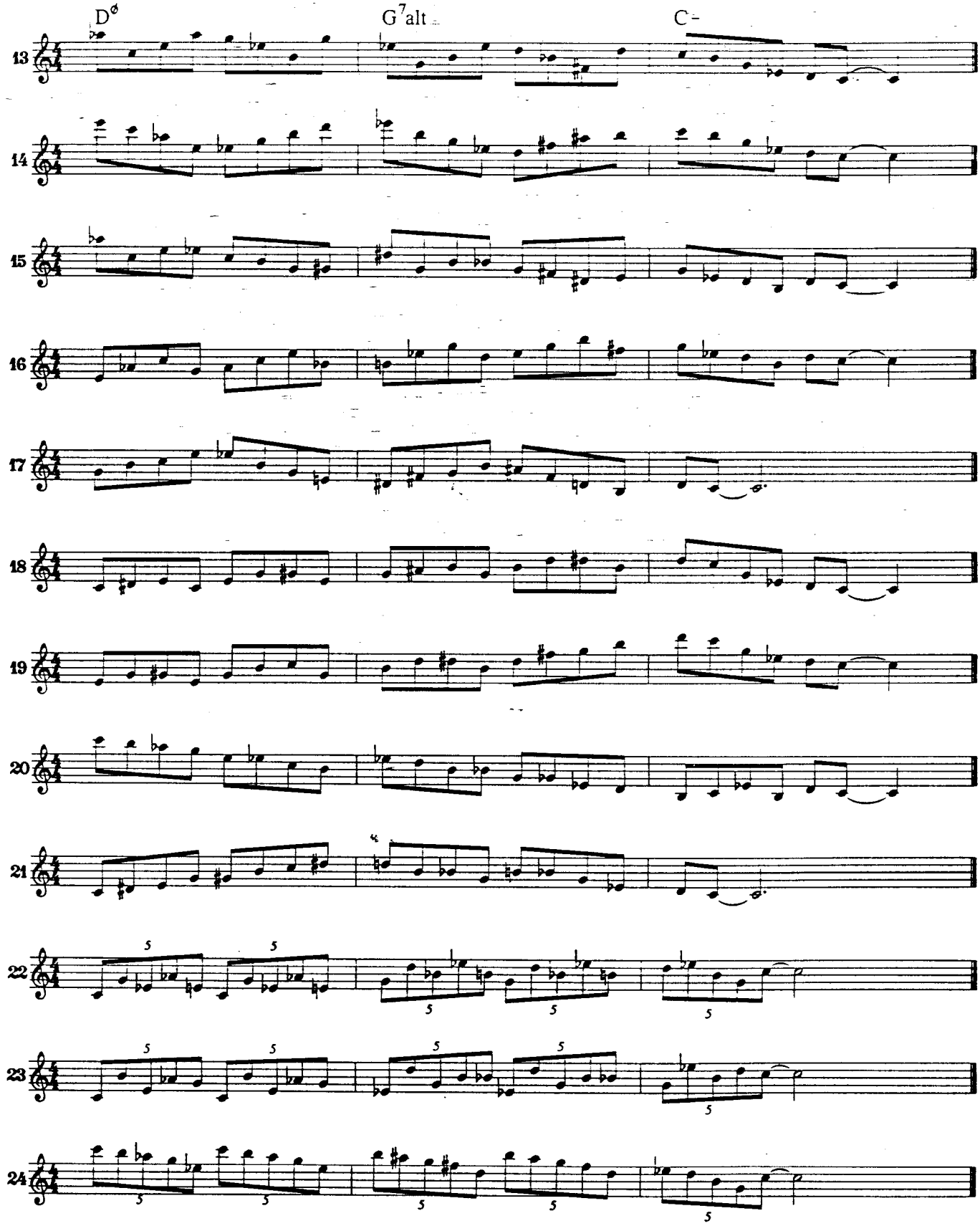

11
12
13
14


15
16
17
18

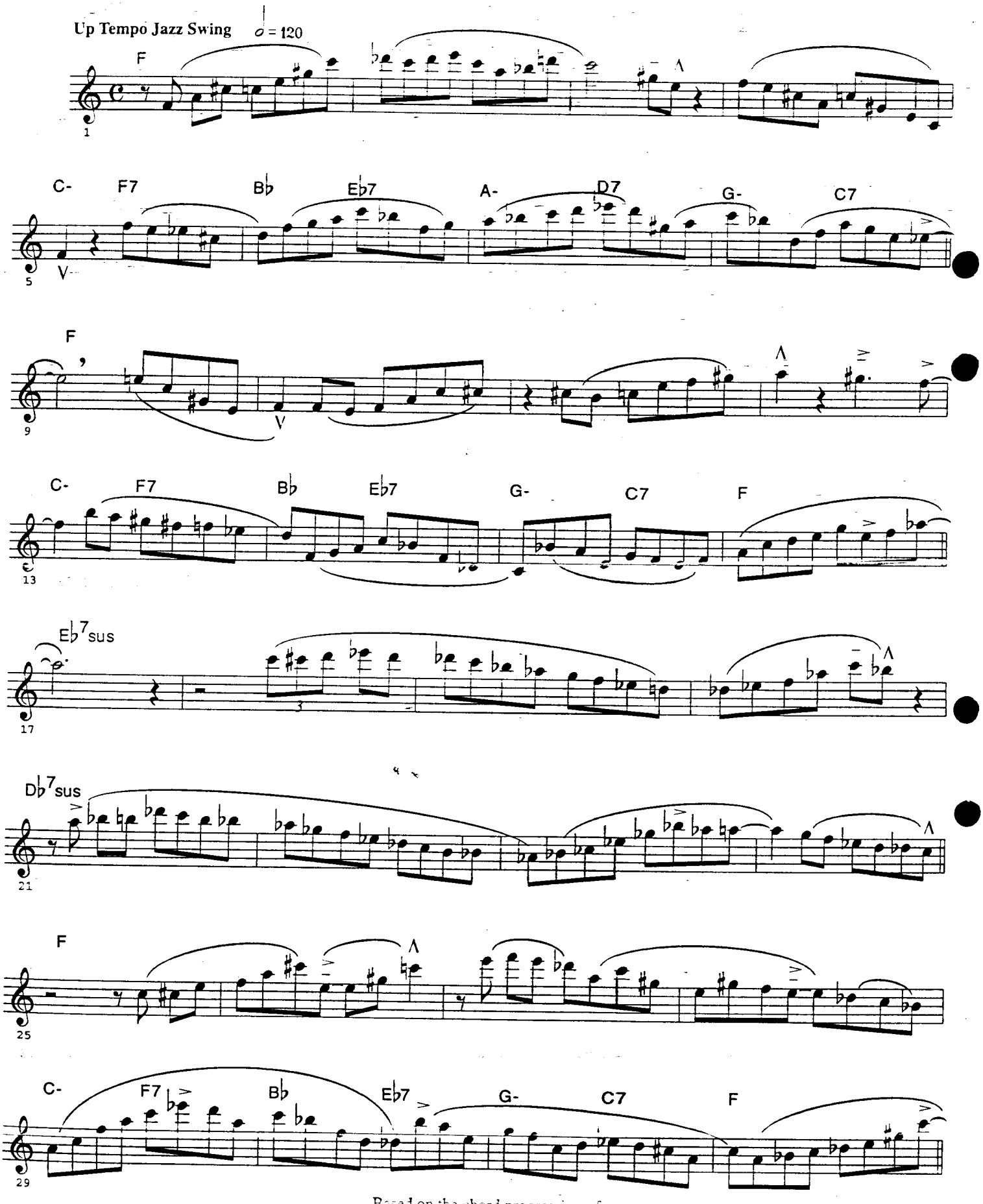

19
20
21
22
23
24
25
26
27

MINOR II-V-I PATTERNS

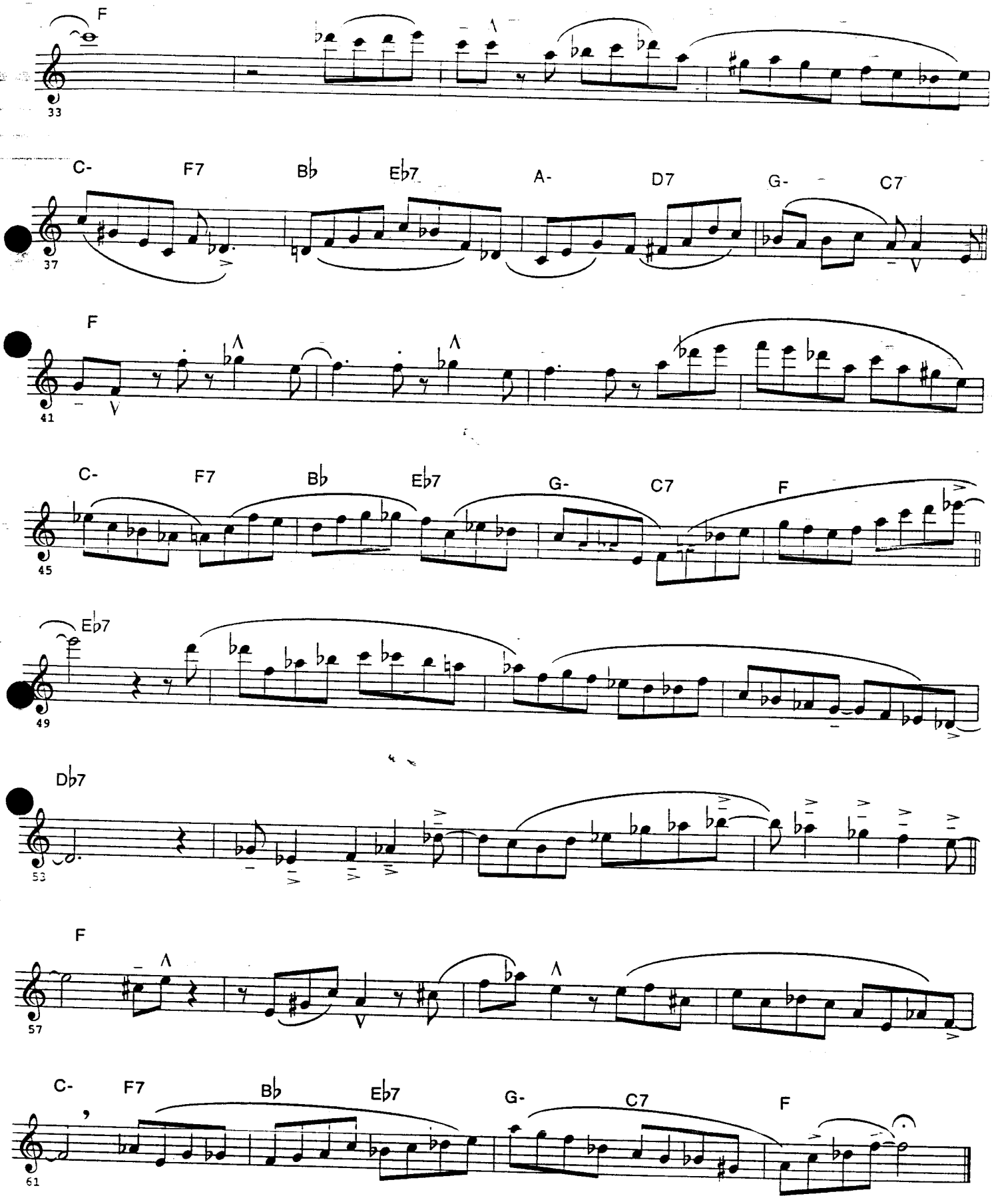



D∅
G7alt
C-
13
14
15
16
17
18
19
20
21
22
23
24

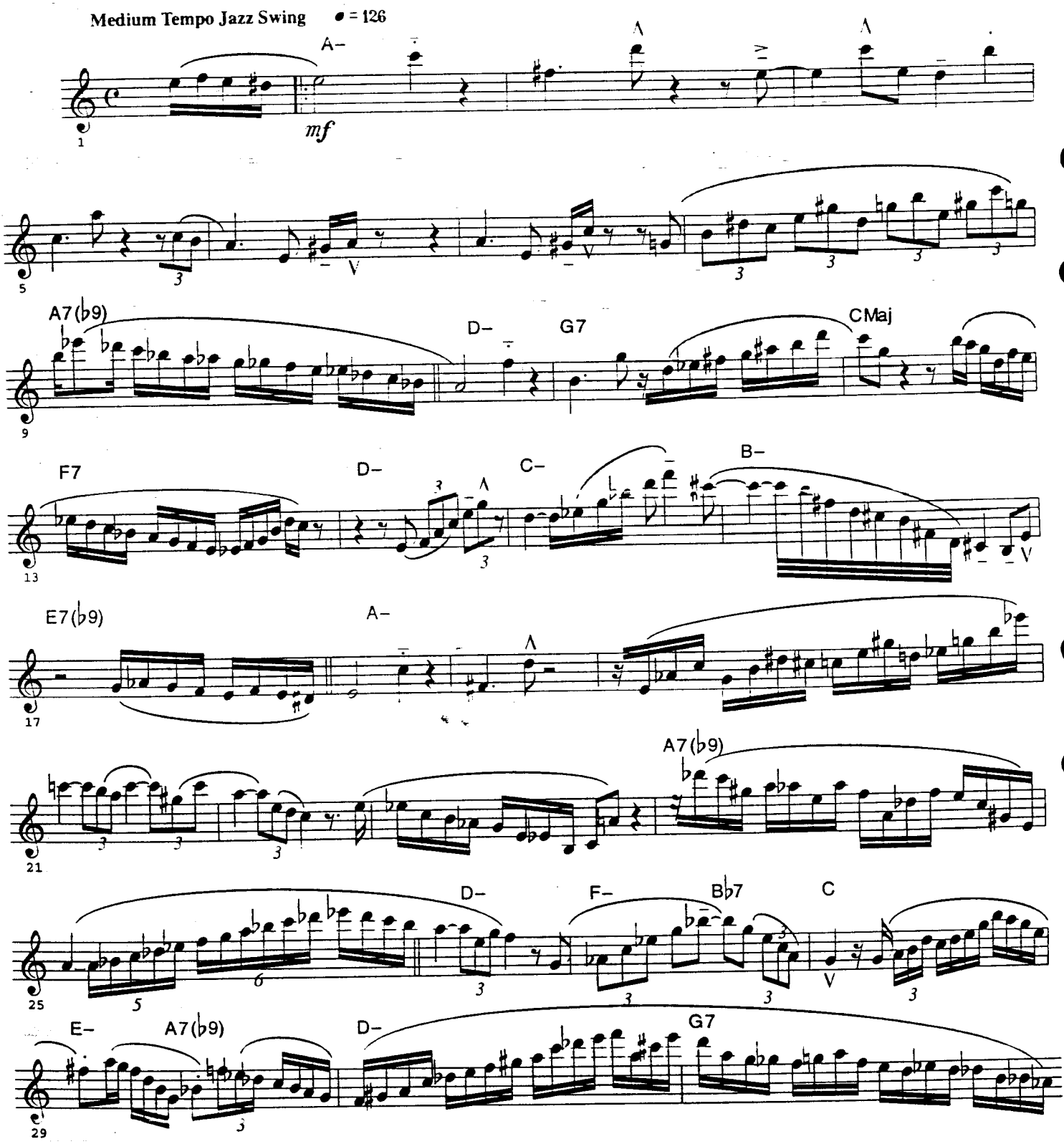
Rhythming Out



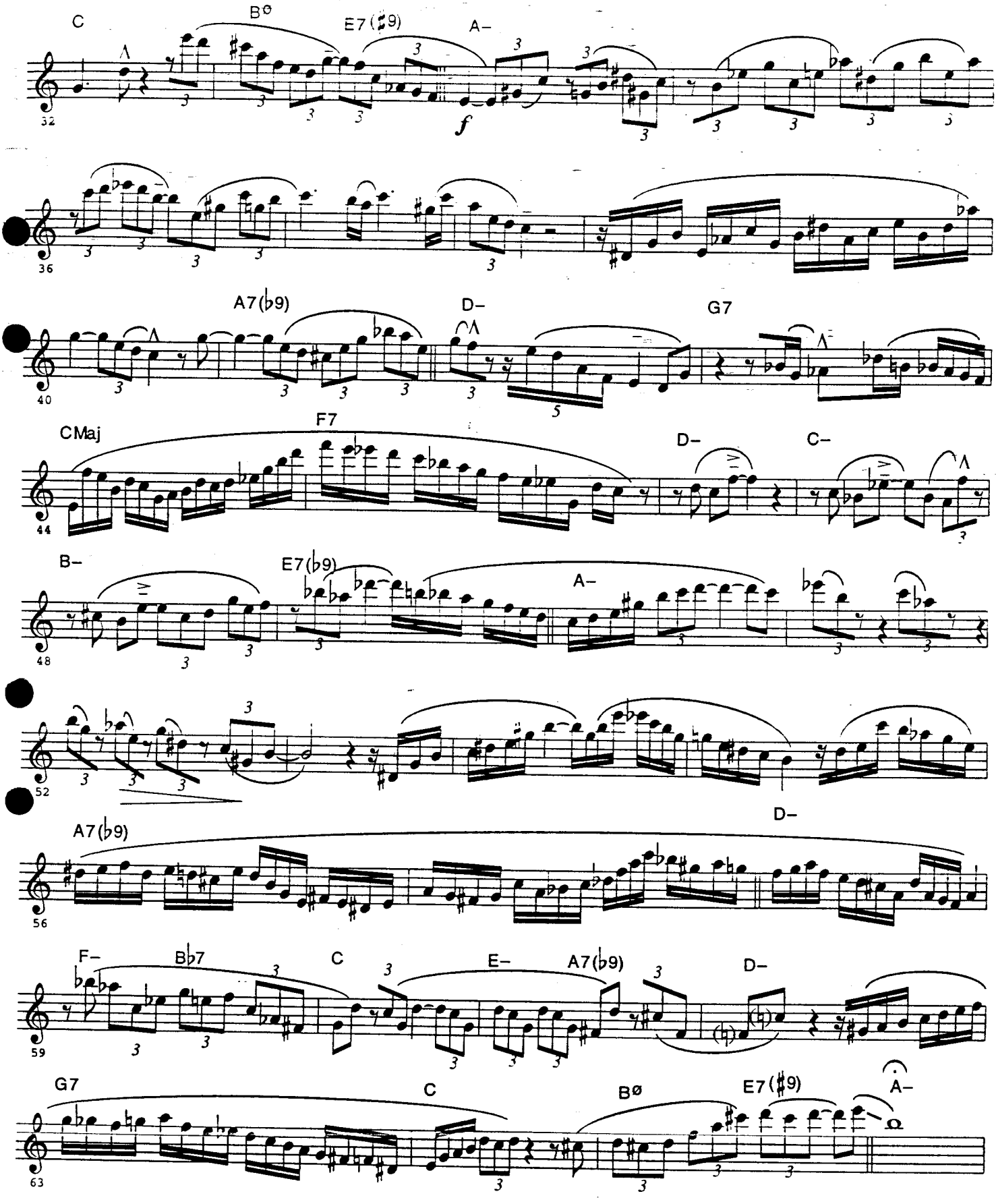
Based on the chord progression of
"Tanuki's Night Out" by Lew Tabackin


F
33
C-
F7
Bb
Eb7
A-
D7
G-
C7
37
F
41
C-
F7
Bb
Eb7
G-
C7
F
45
Eb7
49
Db7
53
F
57
C-
F7
Bb
Eb7
G-
C7
F
61

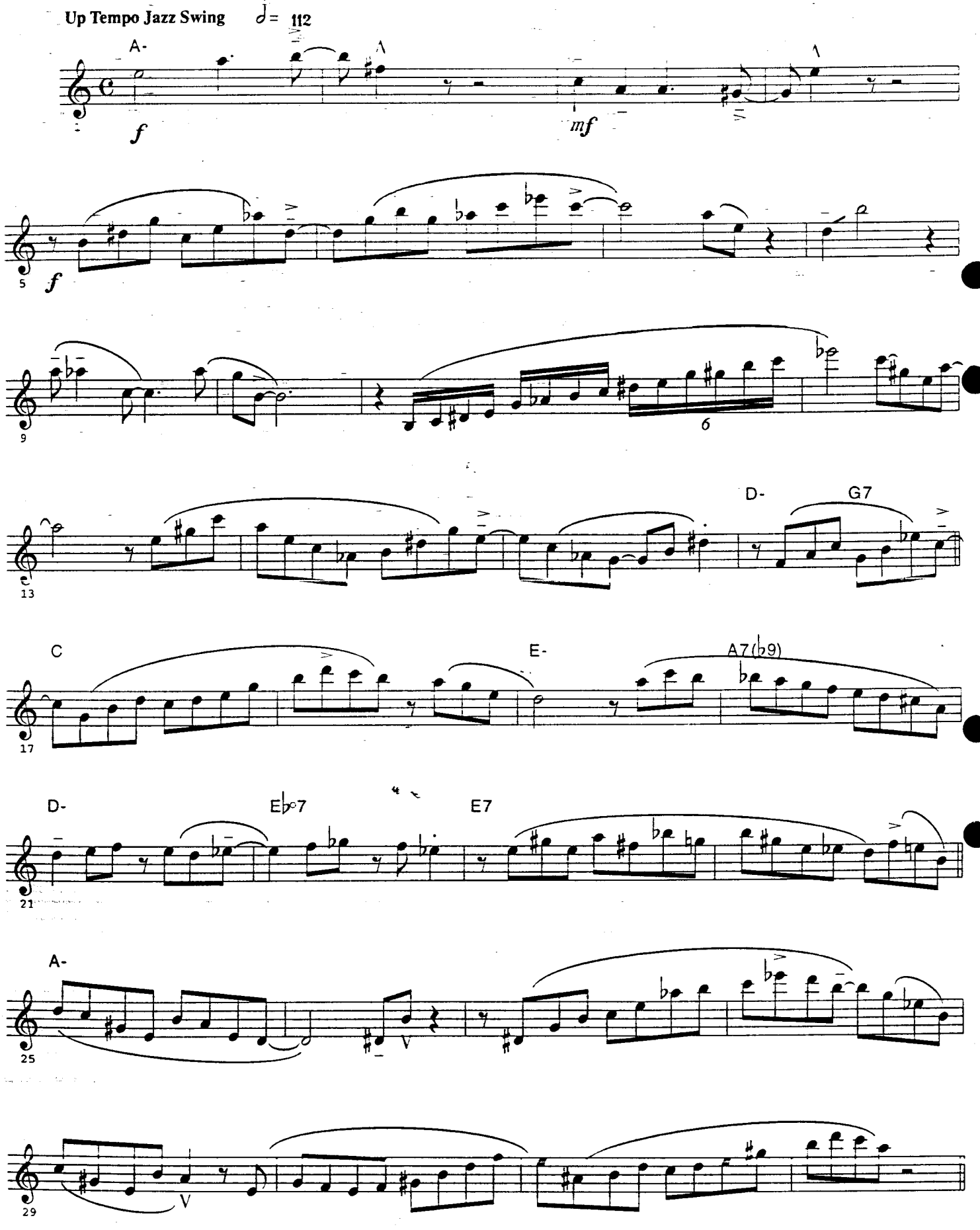
Way Out Of Town



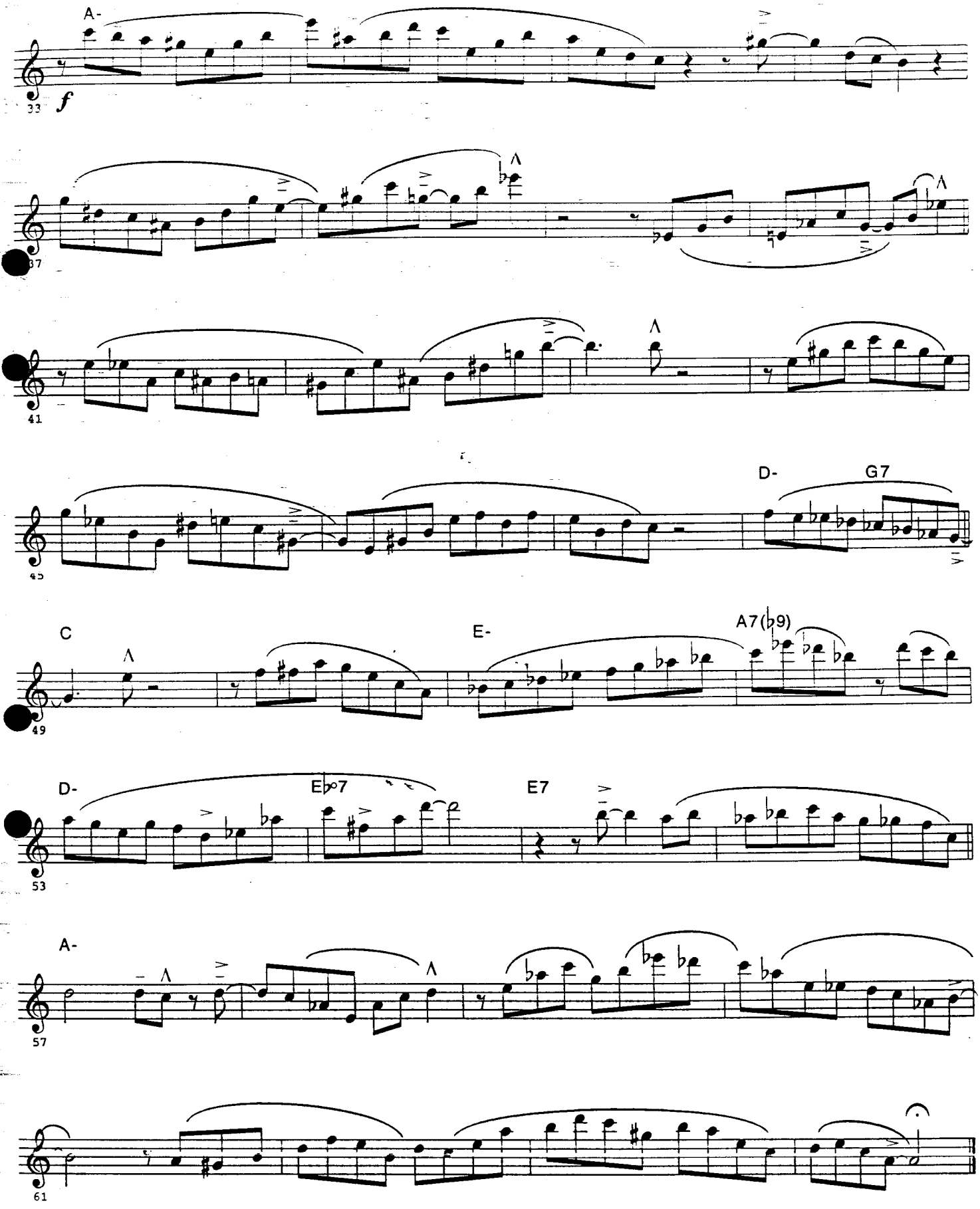
Based on the chord progression of
"Get Out Of Town" by Cole Porter


C
Bø
E7(♯9)
A–
f
32
36
A7(♭9)
D–
G7
40
CMaj
F7
D–
C–
44
B–
E7(♭9)
A–
48
52
A7(♭9)
D–
56
F–
B♭7
C
E–
A7(♭9)
D–
59
G7
C
Bø
E7(♯9)
A–
63

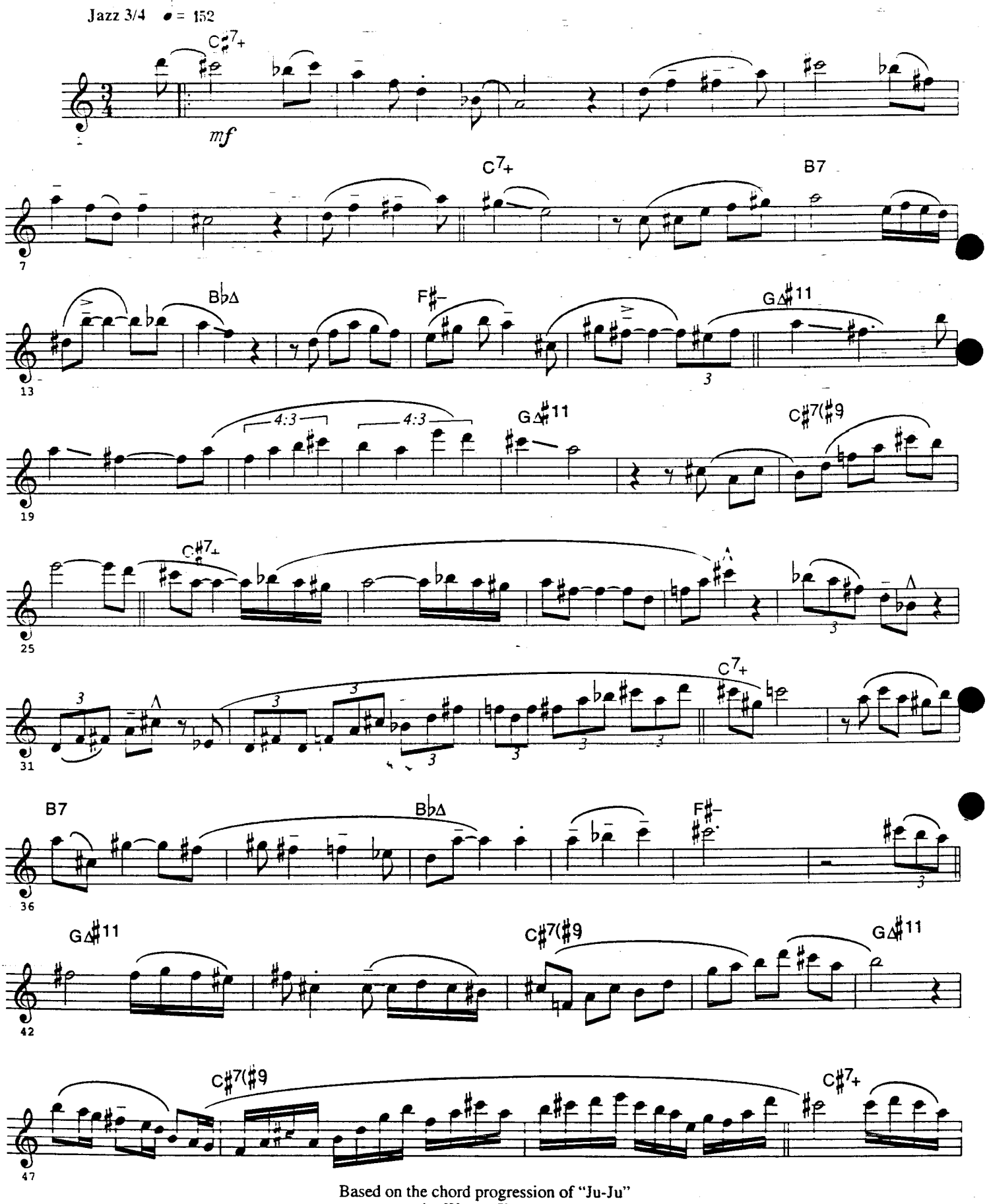
Hardly A Morning Sunrise



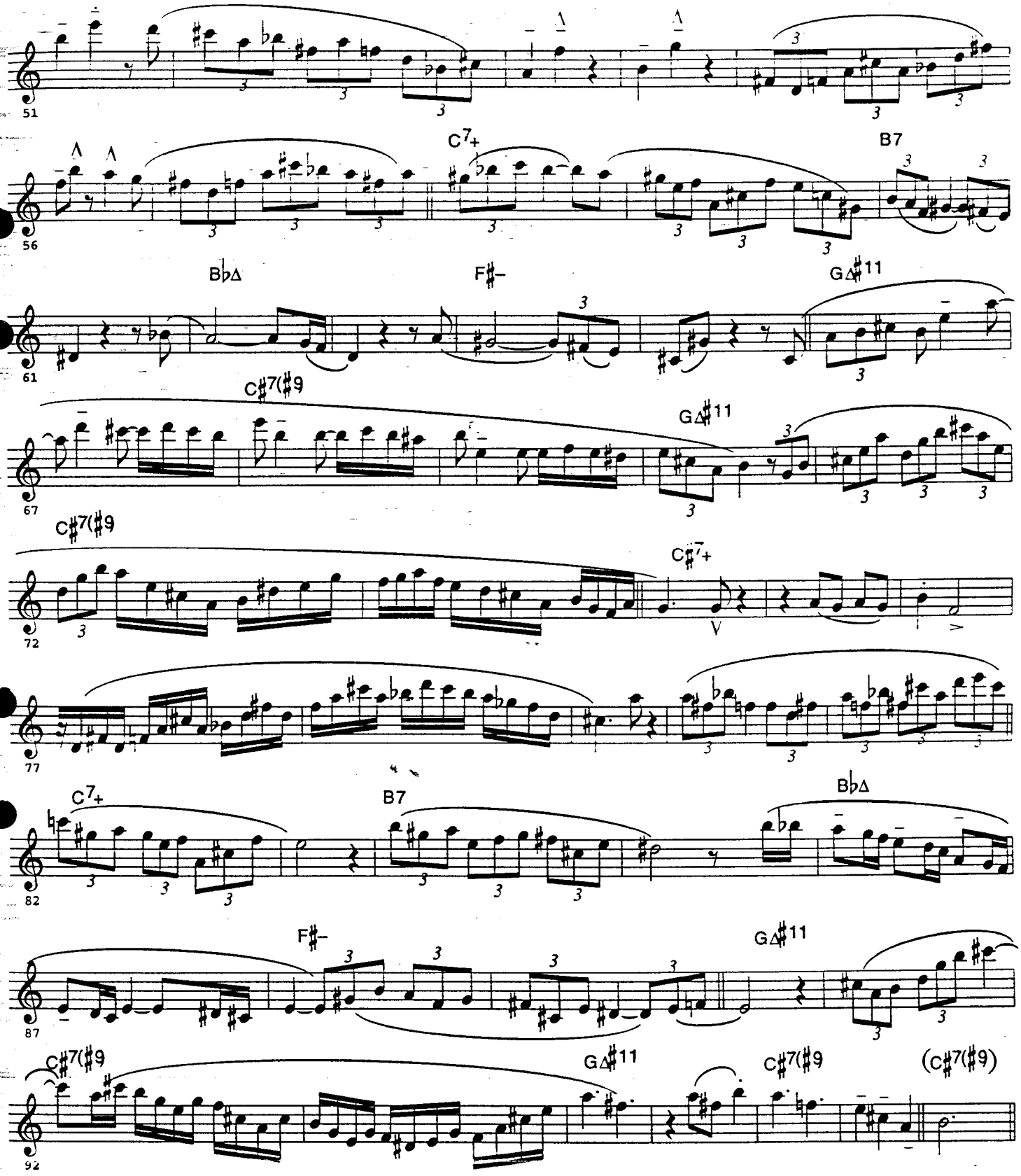
Based on the chord progression of "Softly, as in a Morning Sunrise" by Sigmund Romberg


A-
33
f
37
41
D-
G7
45
C
E-
A7(♭9)
49
D-
E♭o7
E7
53
A-
57
61

Lu-Lu

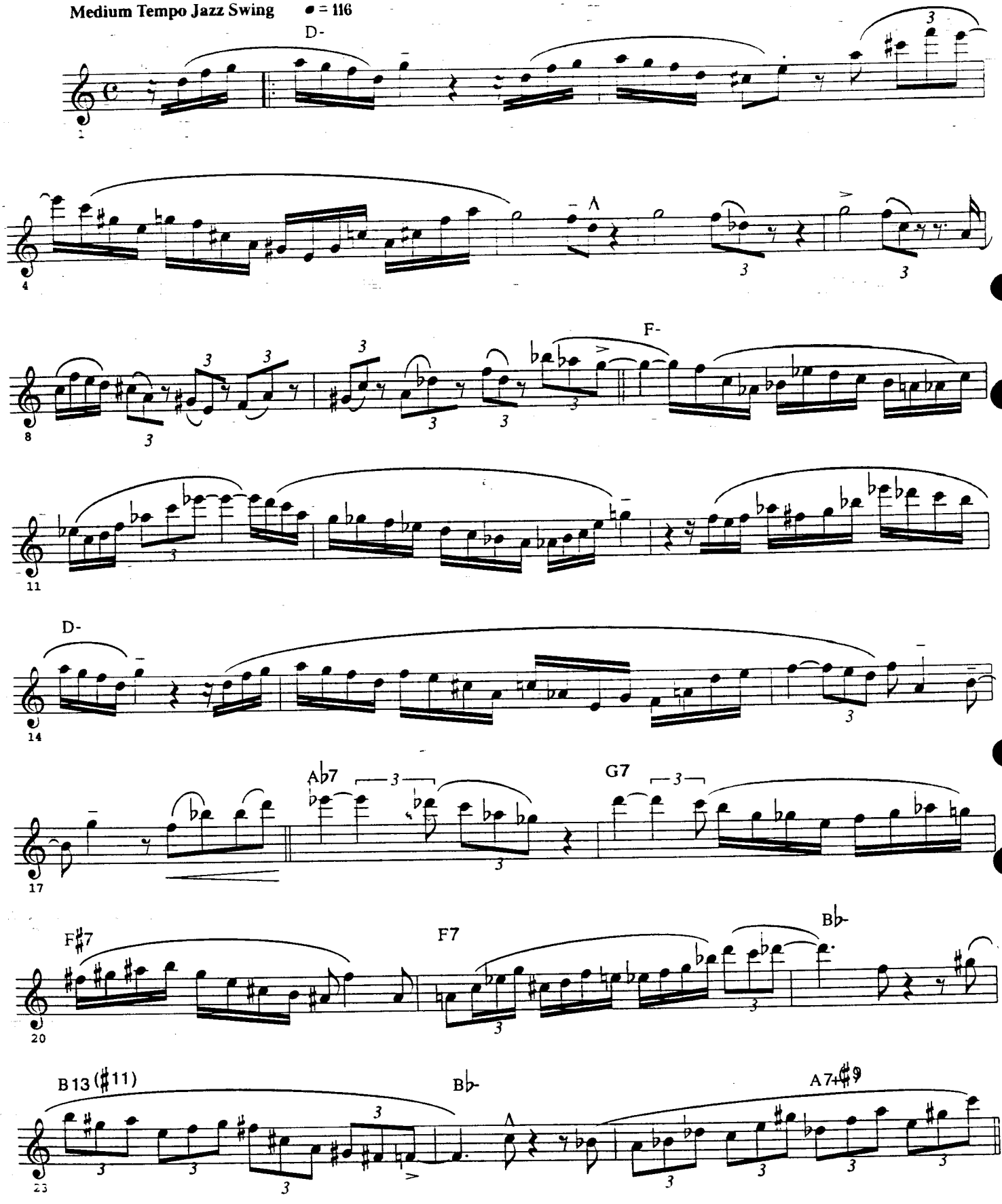


Based on the chord progression of "Ju-Ju"
by Wayne Shorter

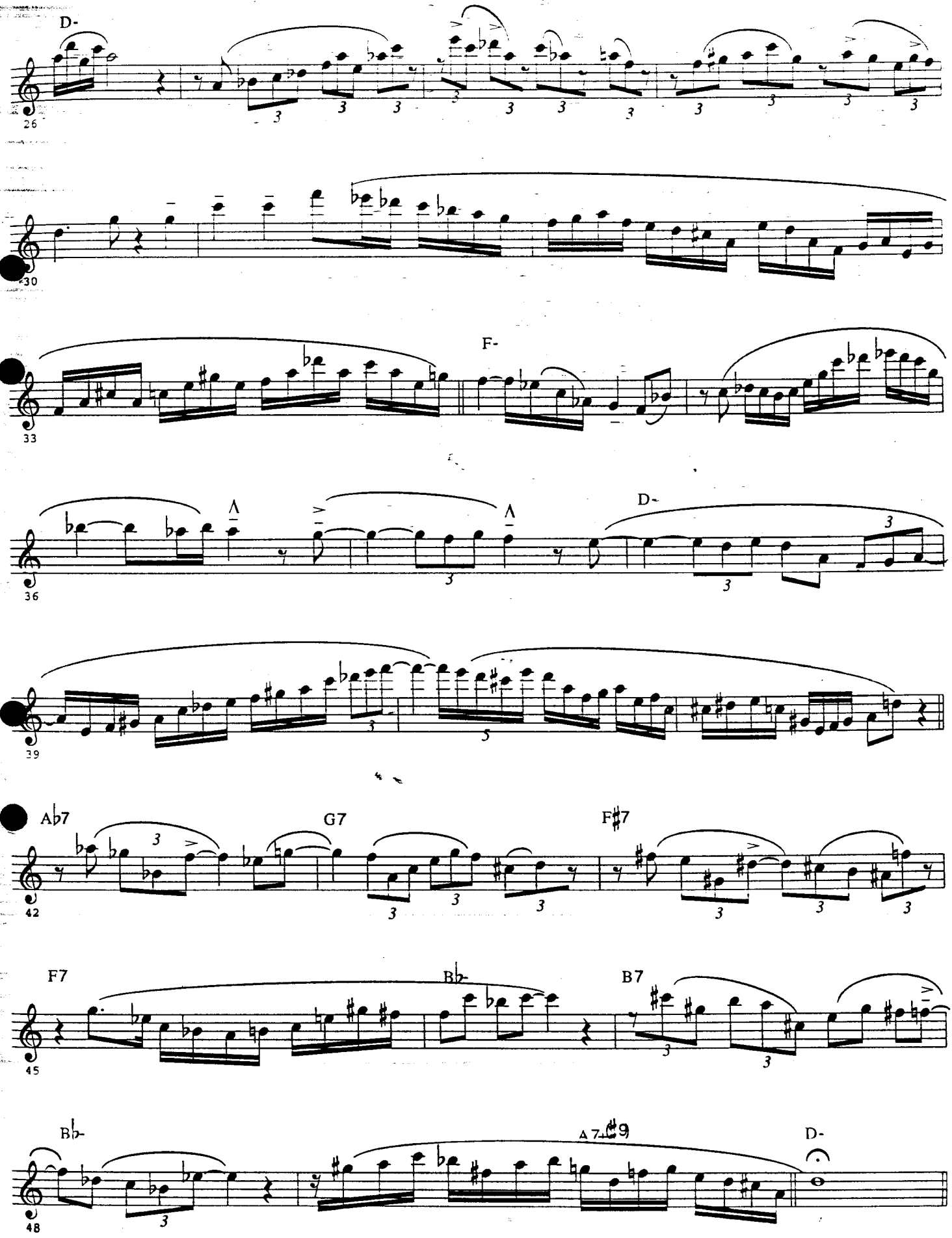

51
56
C7+
B7
61
B♭Δ
F♯–
G♯Δ11
67
C♯7(♯9
G♯Δ11
72
C♯7(♯9
C♯7+
V
77
82
C7+
B7
B♭Δ
87
F♯–
G♯Δ11
92
C♯7(♯9
G♯Δ11
C♯7(♯9
(C♯7(♯9)

Salem

Medium Tempo Jazz Swing ♩ = 116



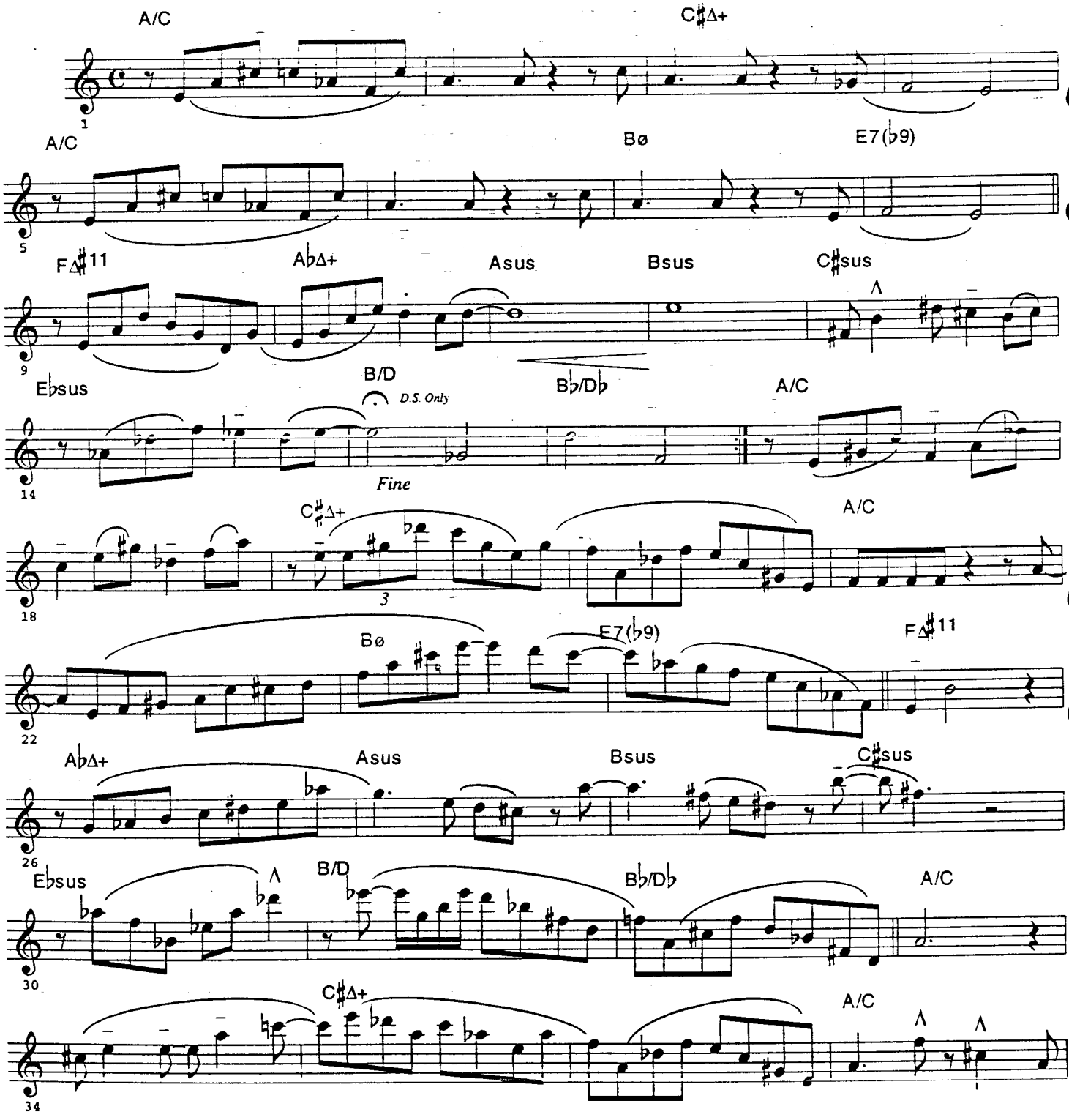
Based on the chord progression of "Witch Hunt"
by Wayne Shorter

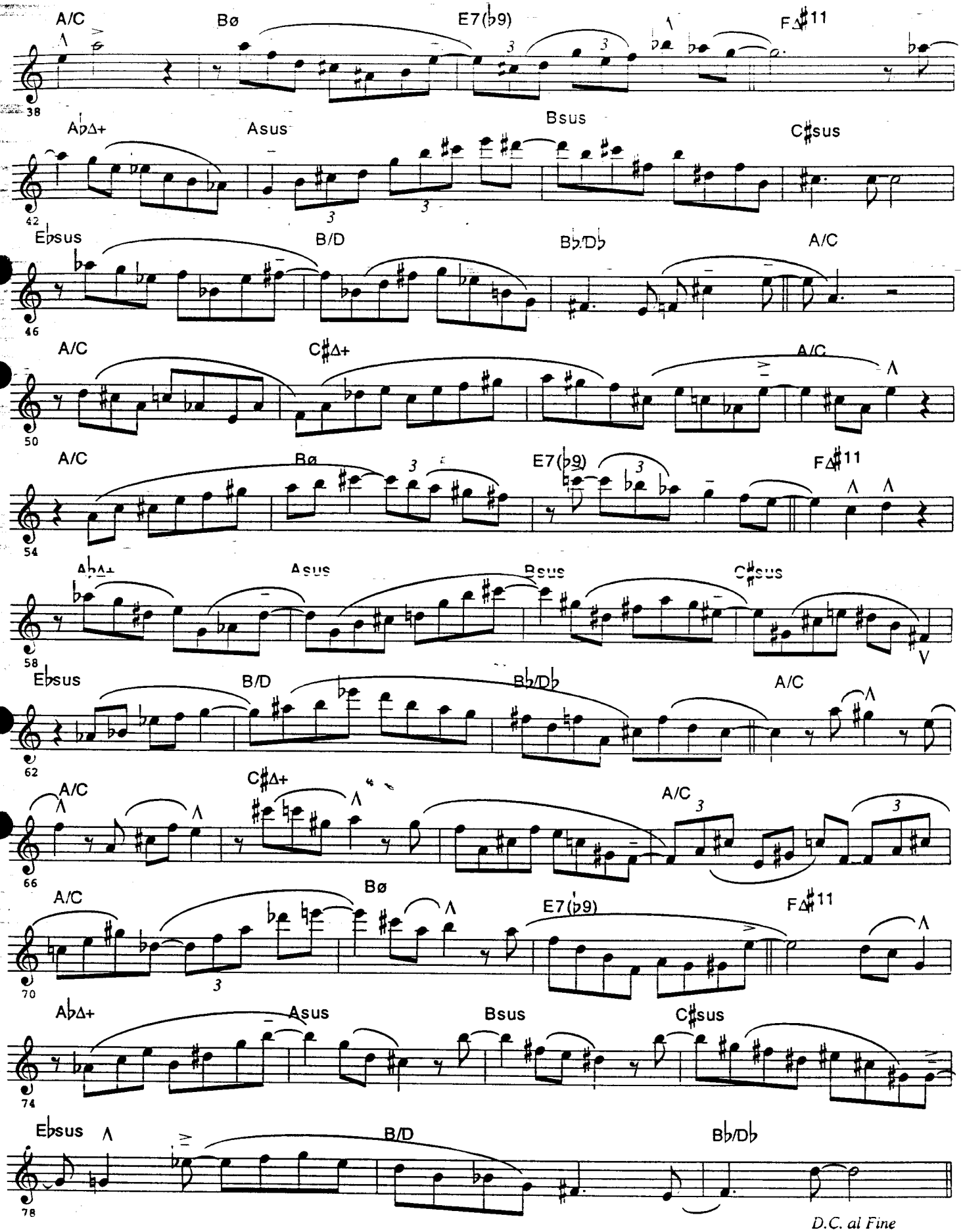

D-
26
30
F-
33
D-
36
39
Ab7
G7
F#7
42
F7
Bb-
B7
45
Bb-
A7 b9
D-
48

Downside Up

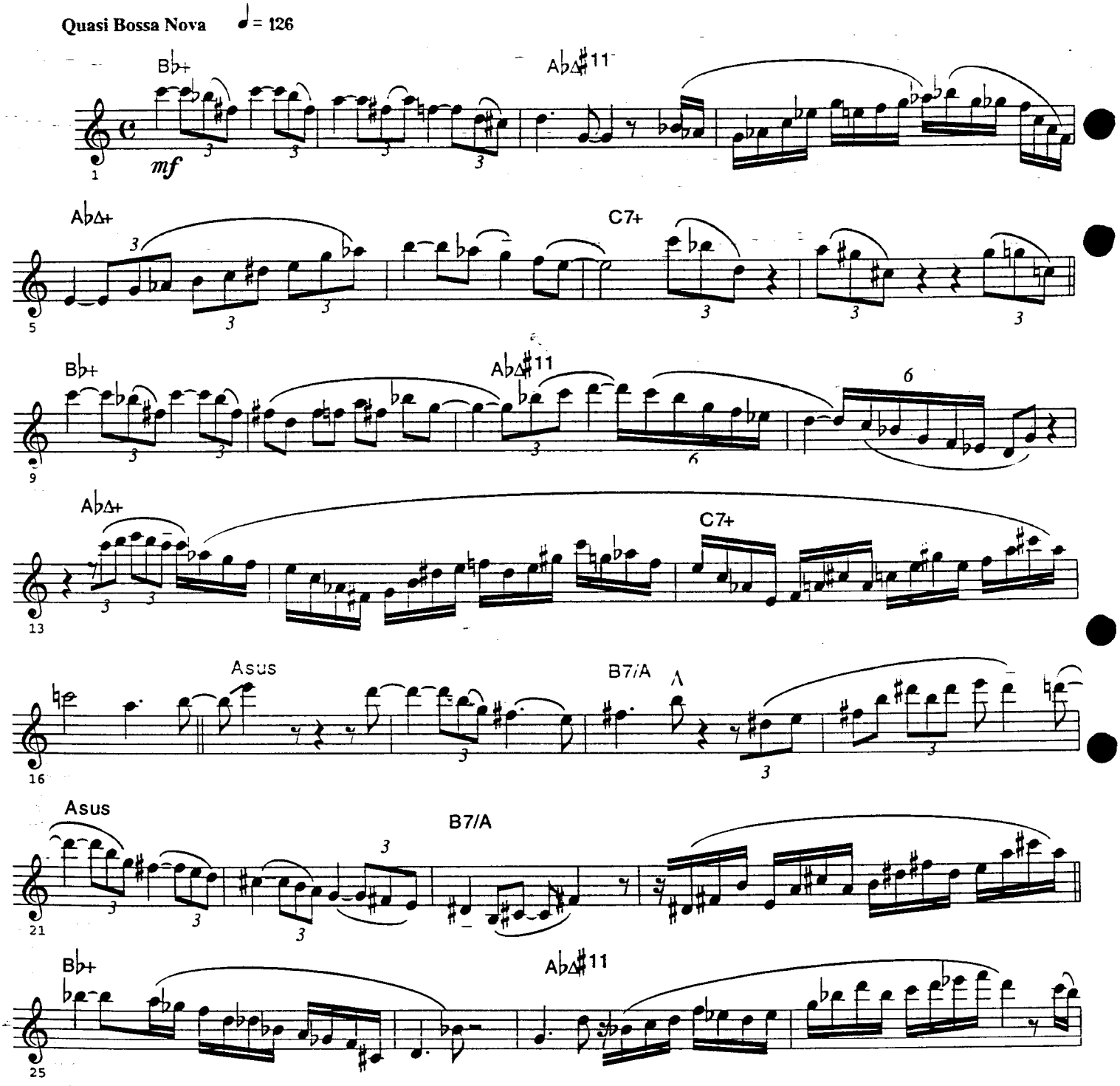
Walt Weiskopf

Up Tempo Jazz Swing ♩ = 96

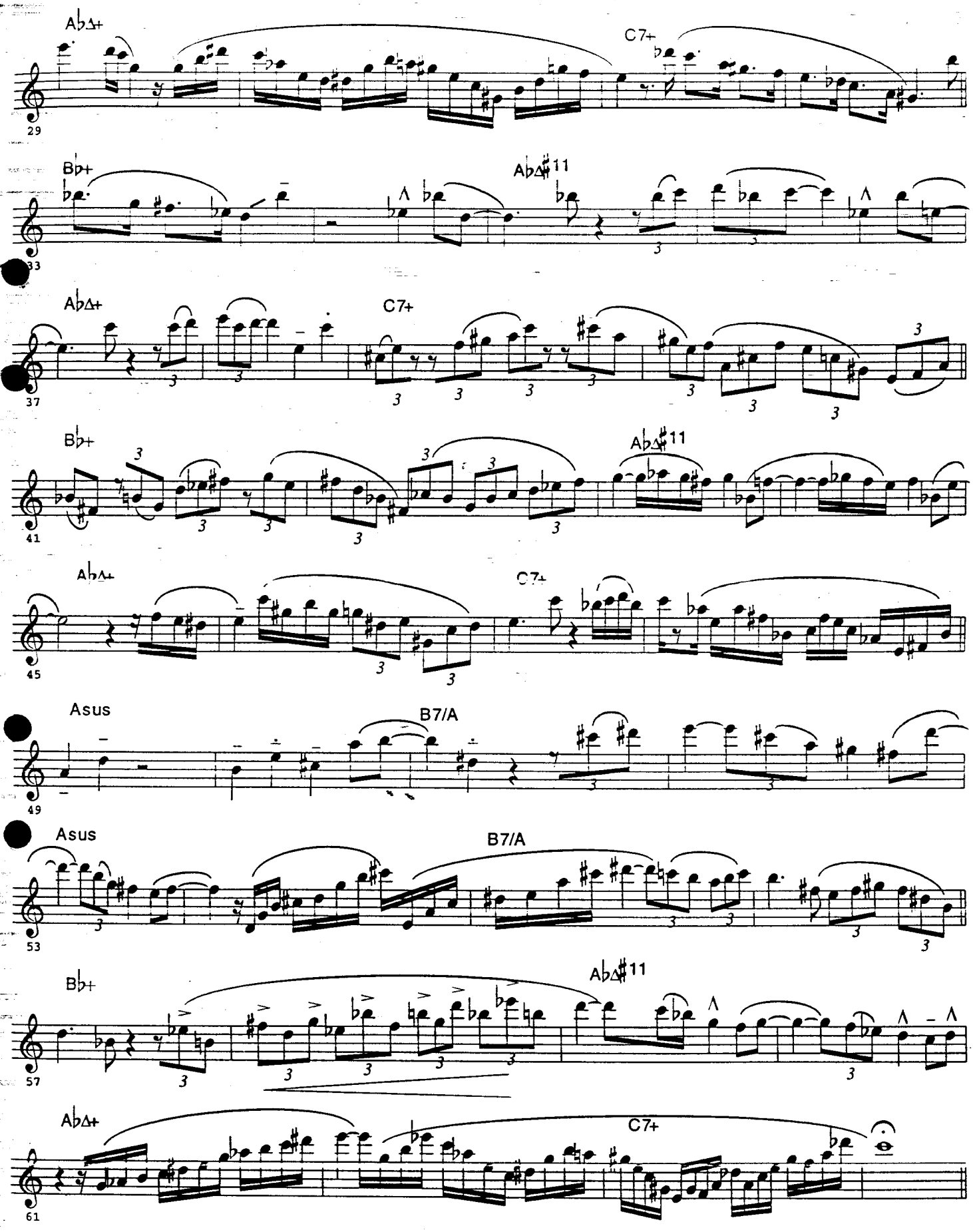



A/C
Bø
E7(♭9)
F♯11
38
A♭Δ+
Asus
Bsus
C♯sus
42
E♭sus
B/D
B♭/D♭
A/C
46
A/C
C♯Δ+
A/C
50
A/C
Bø
E7(♭9)
F♯11
54
A♭Δ+
Asus
Bsus
C♯sus
58
E♭sus
B/D
B♭/D♭
A/C
62
A/C
C♯Δ+
A/C
66
A/C
Bø
E7(♭9)
F♯11
70
A♭Δ+
Asus
Bsus
C♯sus
74
E♭sus
B/D
B♭/D♭
78
D.C. al Fine

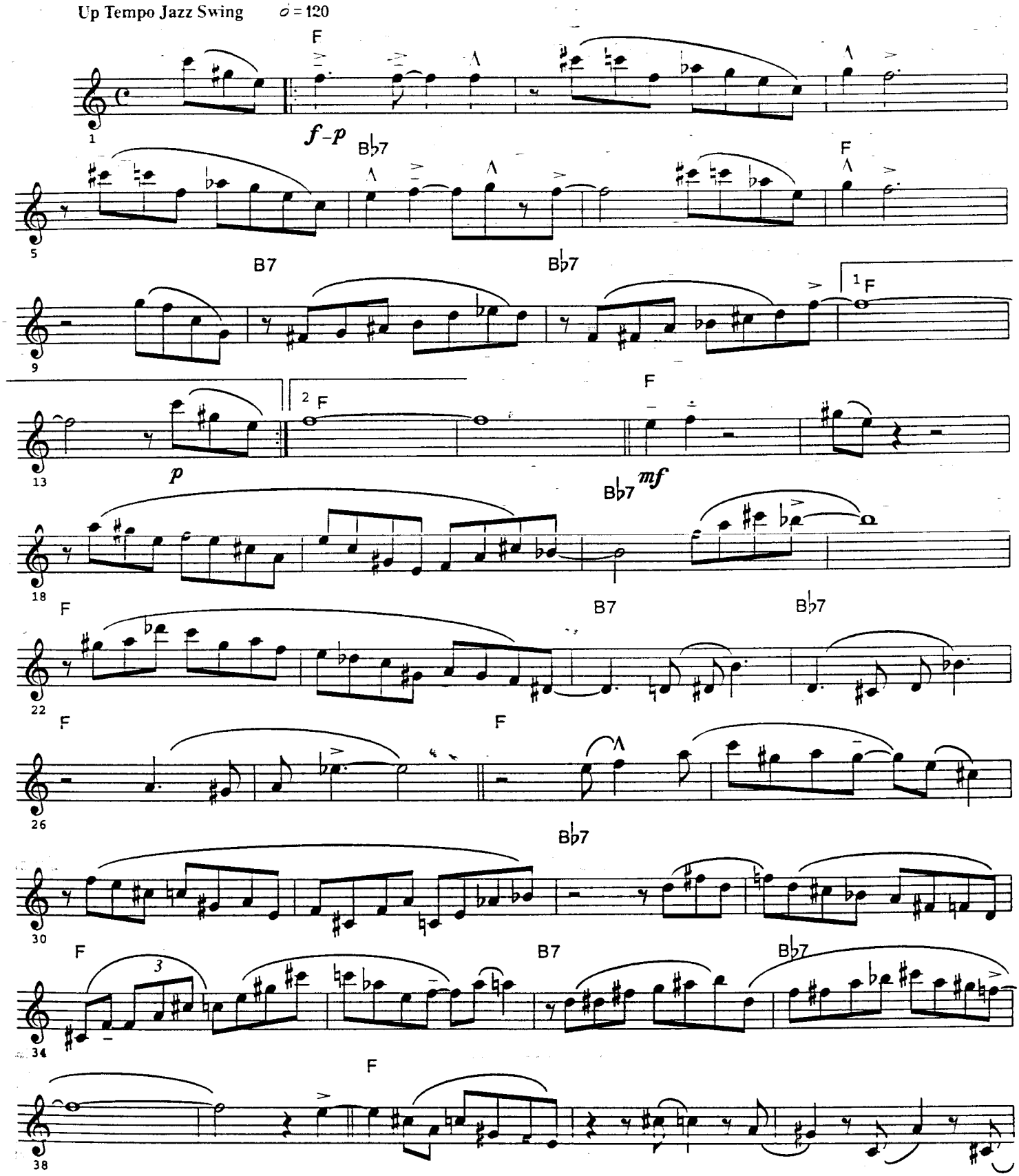
The Same Game



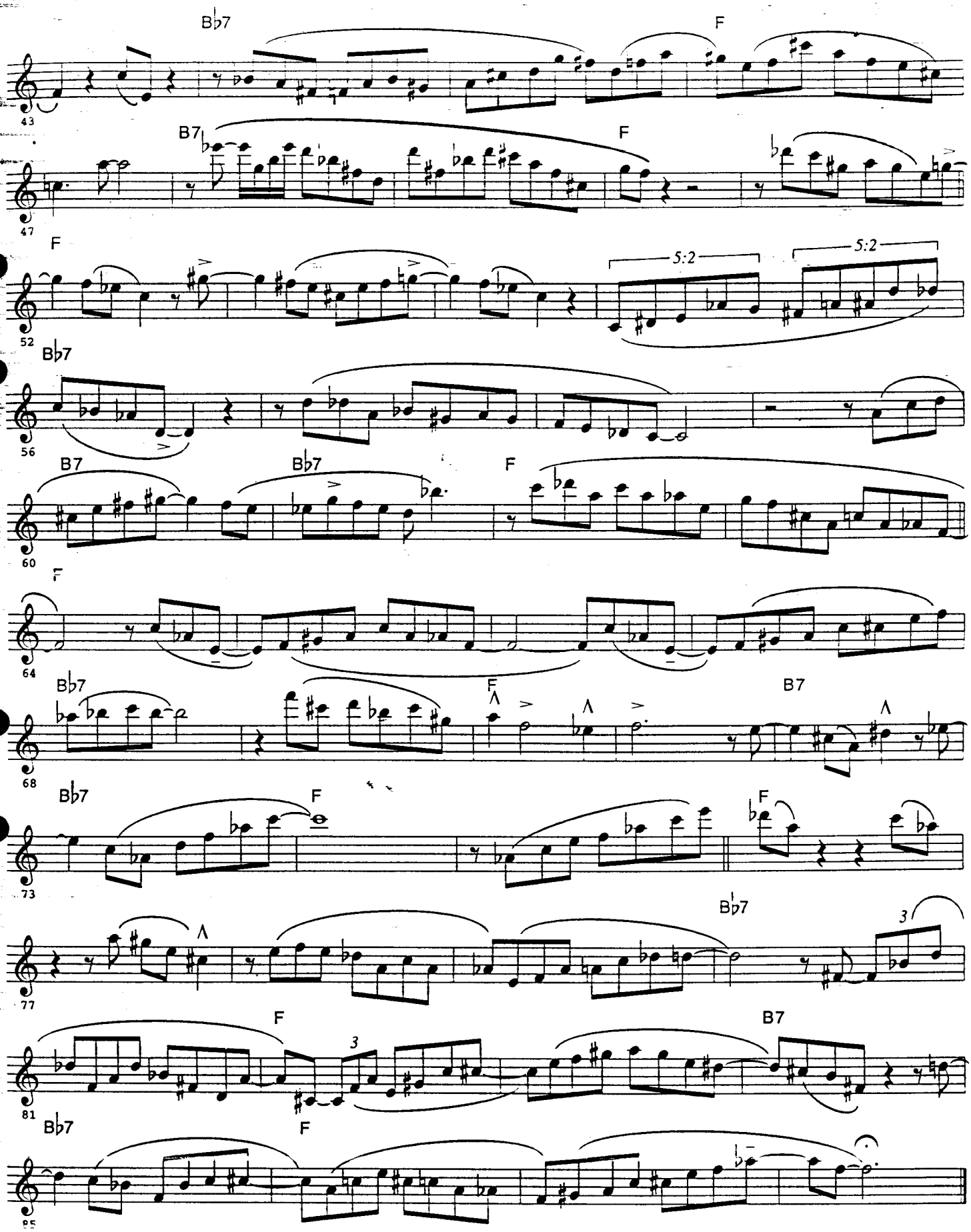
Based on the chord progression of "Same Shame"
by Bobby Hutcherson


A♭Δ+
C7+
29
B♭+
A♭Δ♯11
33
A♭Δ+
C7+
37
B♭+
A♭Δ♯11
41
A♭Δ+
C7+
45
Asus
B7/A
49
Asus
B7/A
53
B♭+
A♭Δ♯11
57
A♭Δ+
C7+
61

Moon Juice

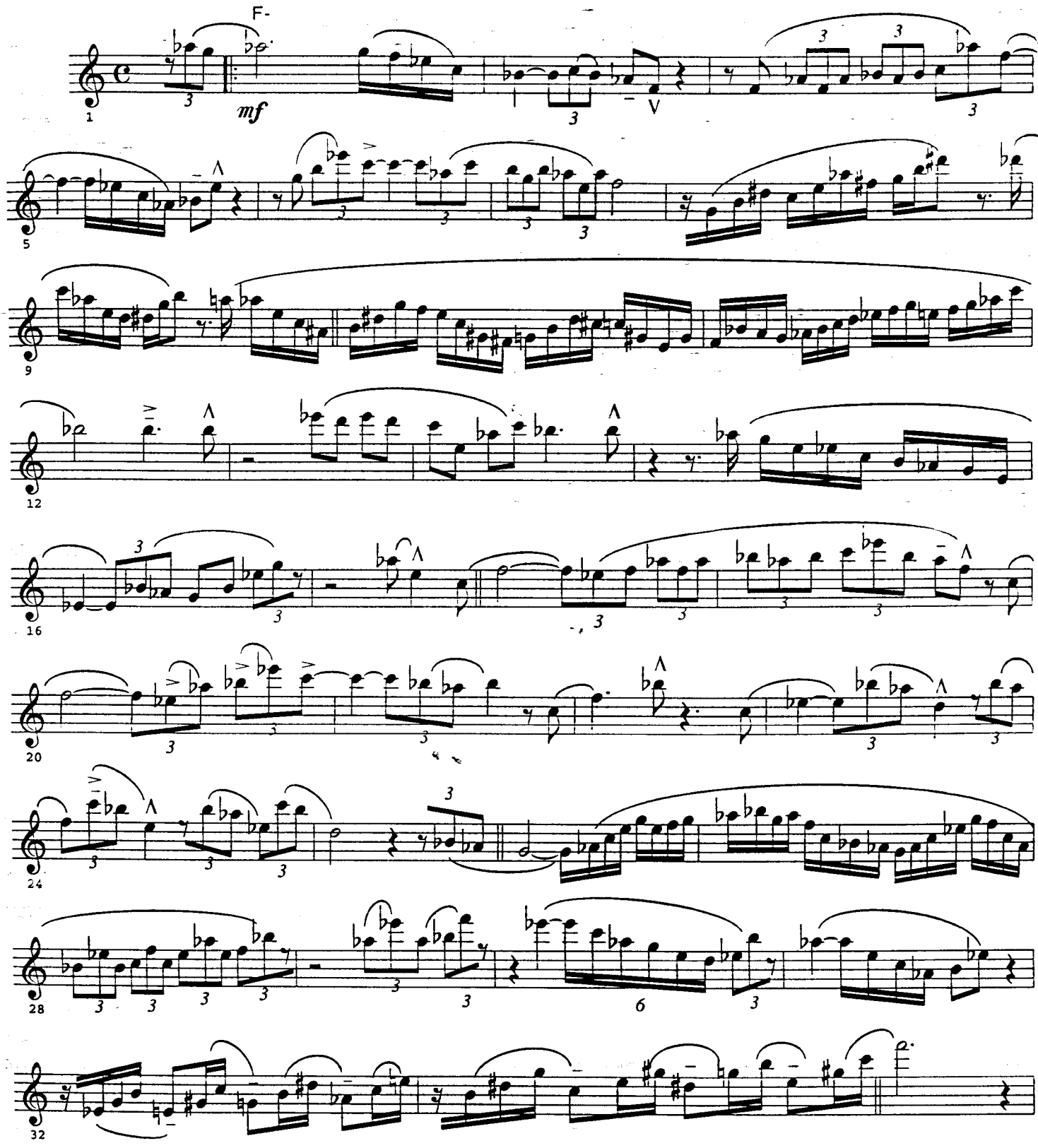


Based on the chord progression of "Moon Germs"
by Joe Farrell

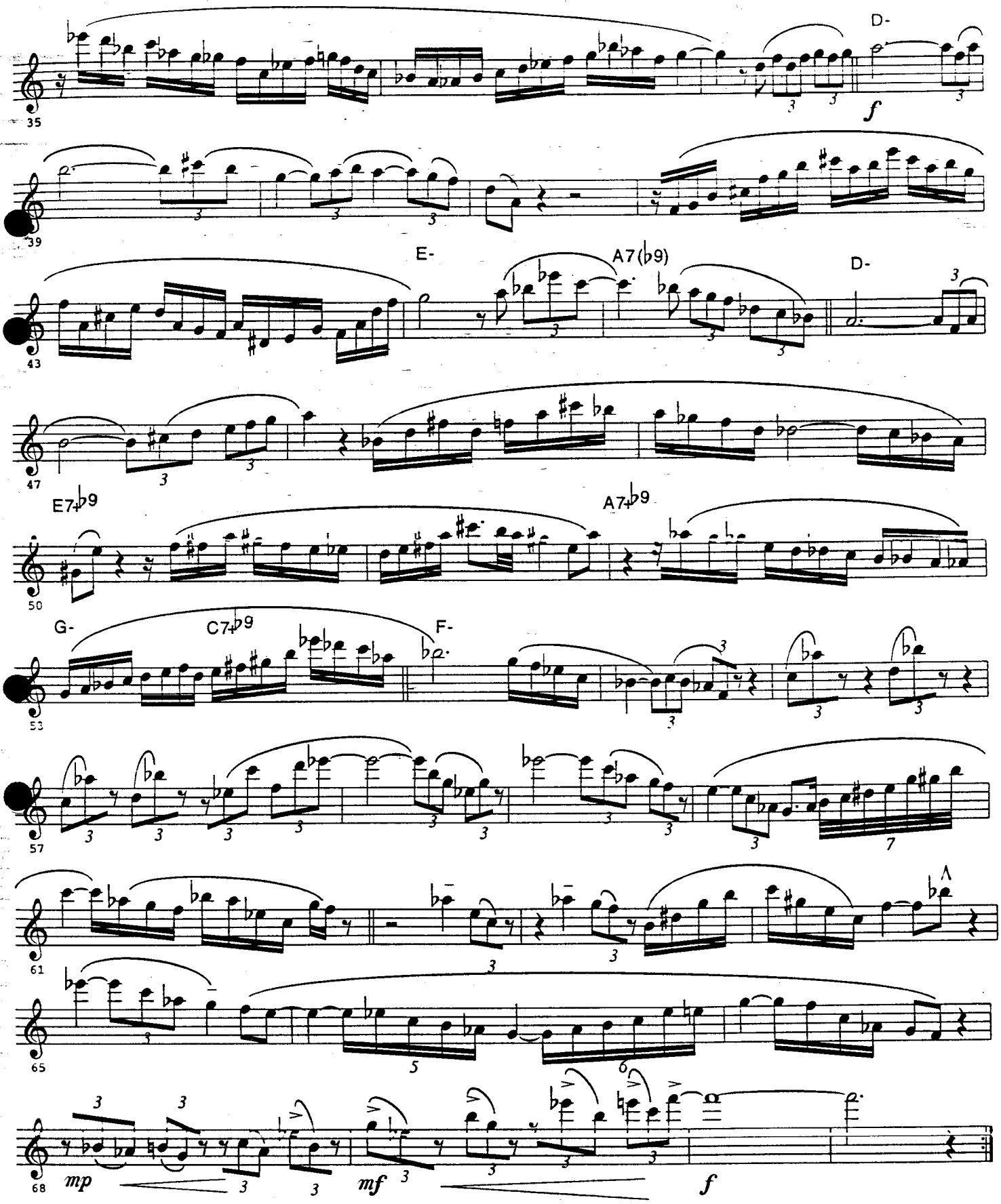

B♭7
F
43
B7
F
47
F
5:2
5:2
52
B♭7
56
B7
B♭7
F
60
F
64
B♭7
F
B7
68
B♭7
F
F
73
B♭7
3
77
F
3
B7
81
B♭7
F
85

Outer Space

Medium Tempo Jazz Swing ♩ = 126



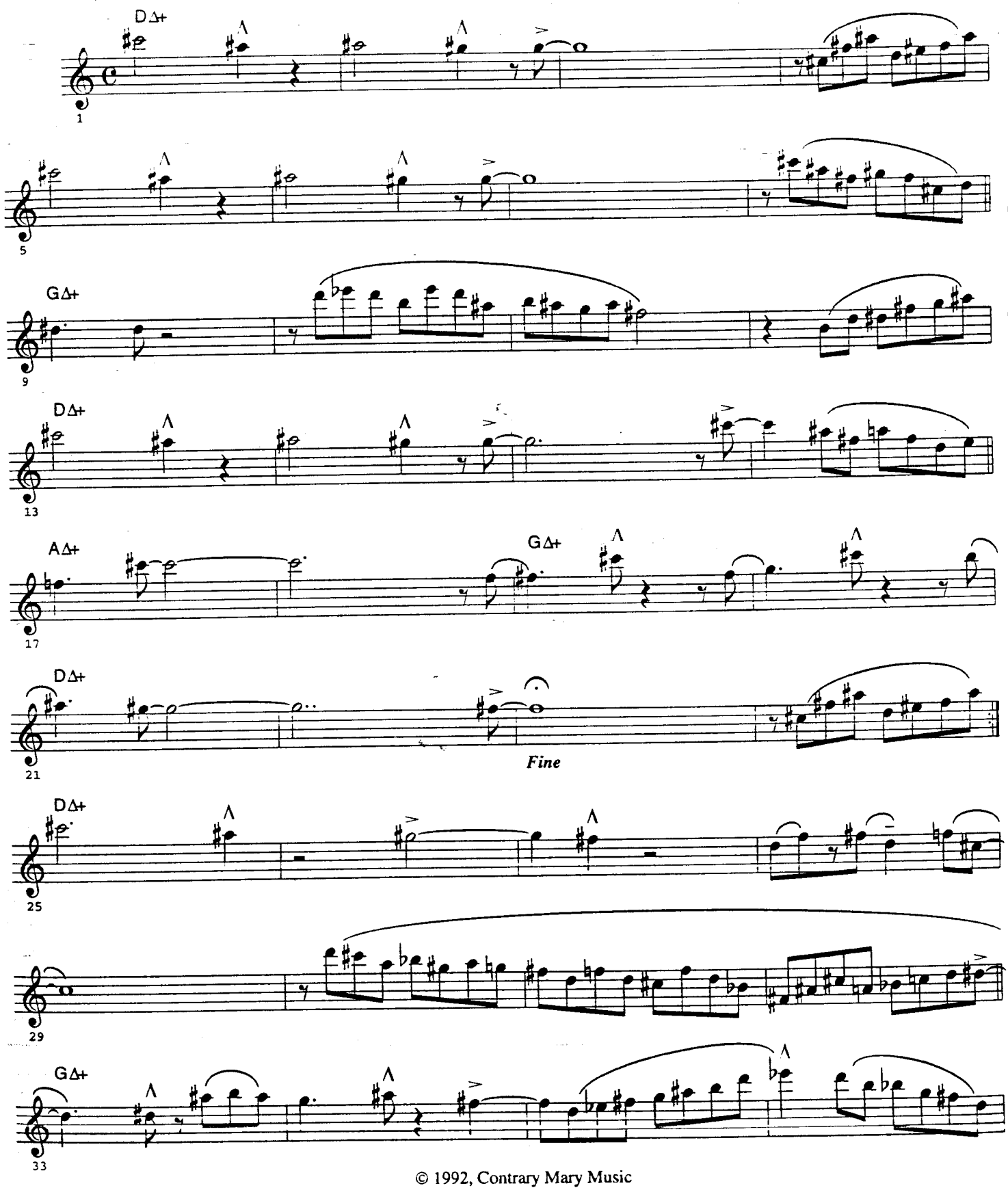
Based on the chord progression of
"Out of This World" by Harold Arlen

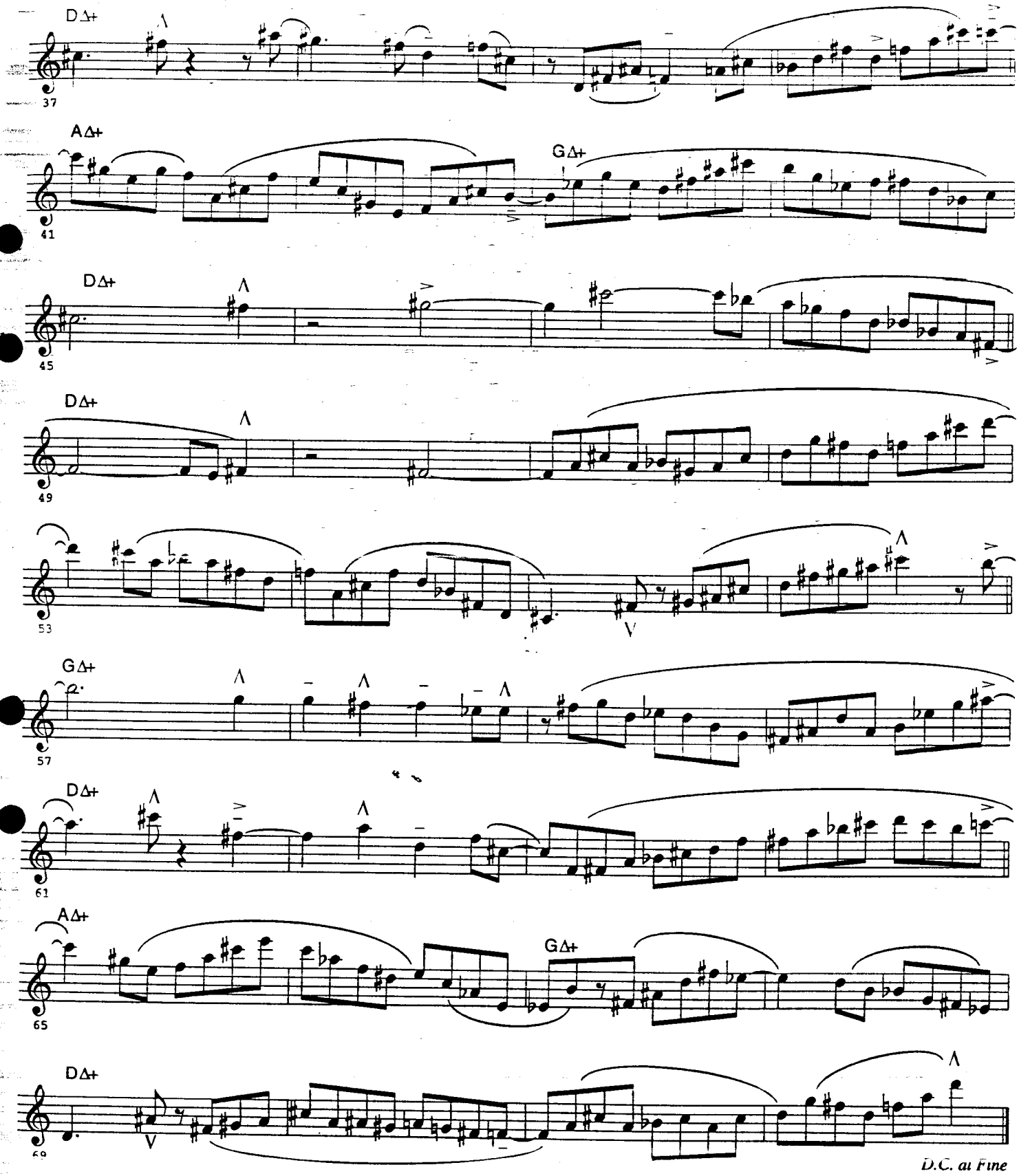

D-
35
f
39
E-
A7(♭9)
D-
43
47
E7♭9
A7♭9
50
G-
C7♭9
F-
53
57
61
65
68
mp
mf
f

Major League

Up Tempo Jazz Swing ♩ = 120

Walt Weiskopf

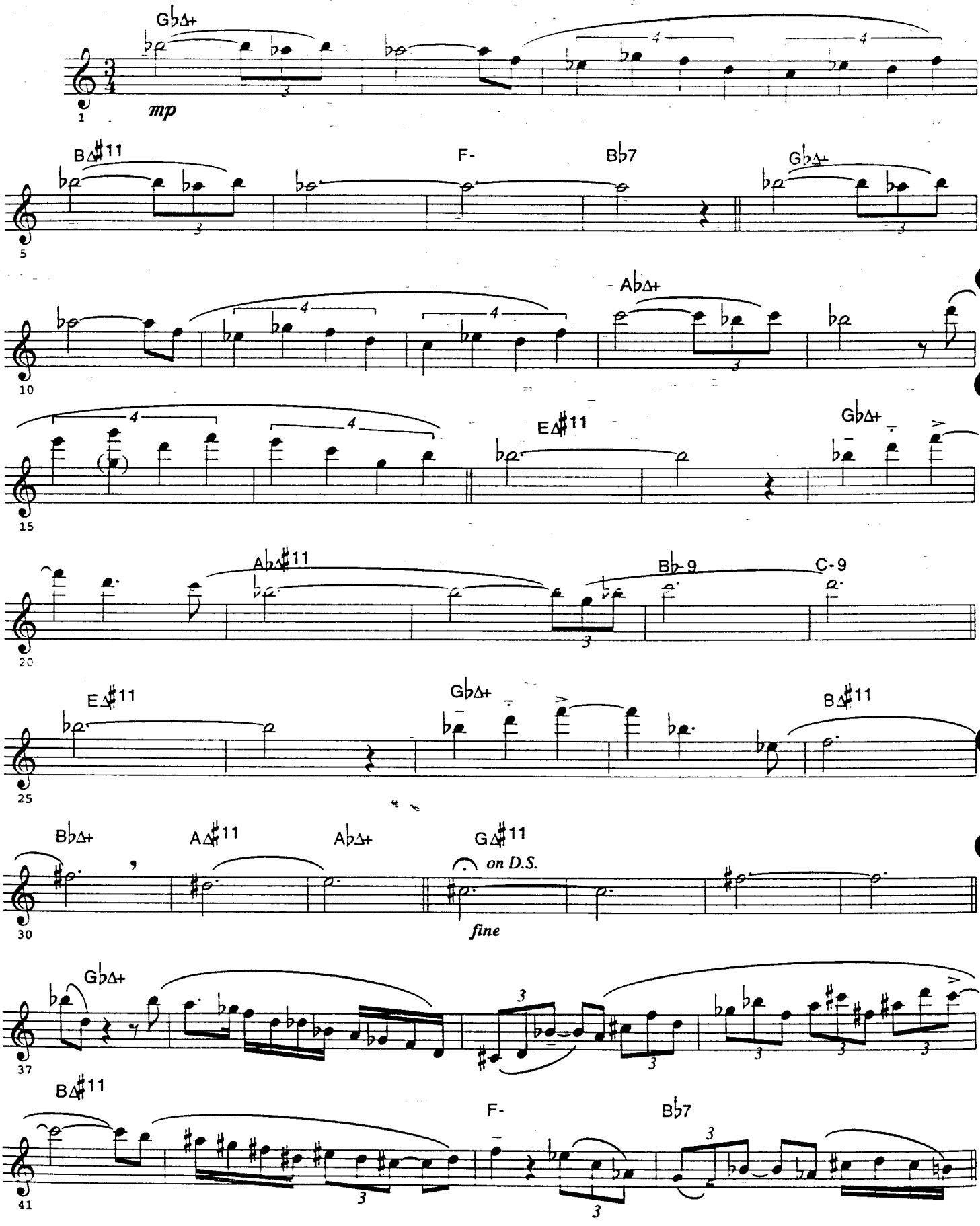


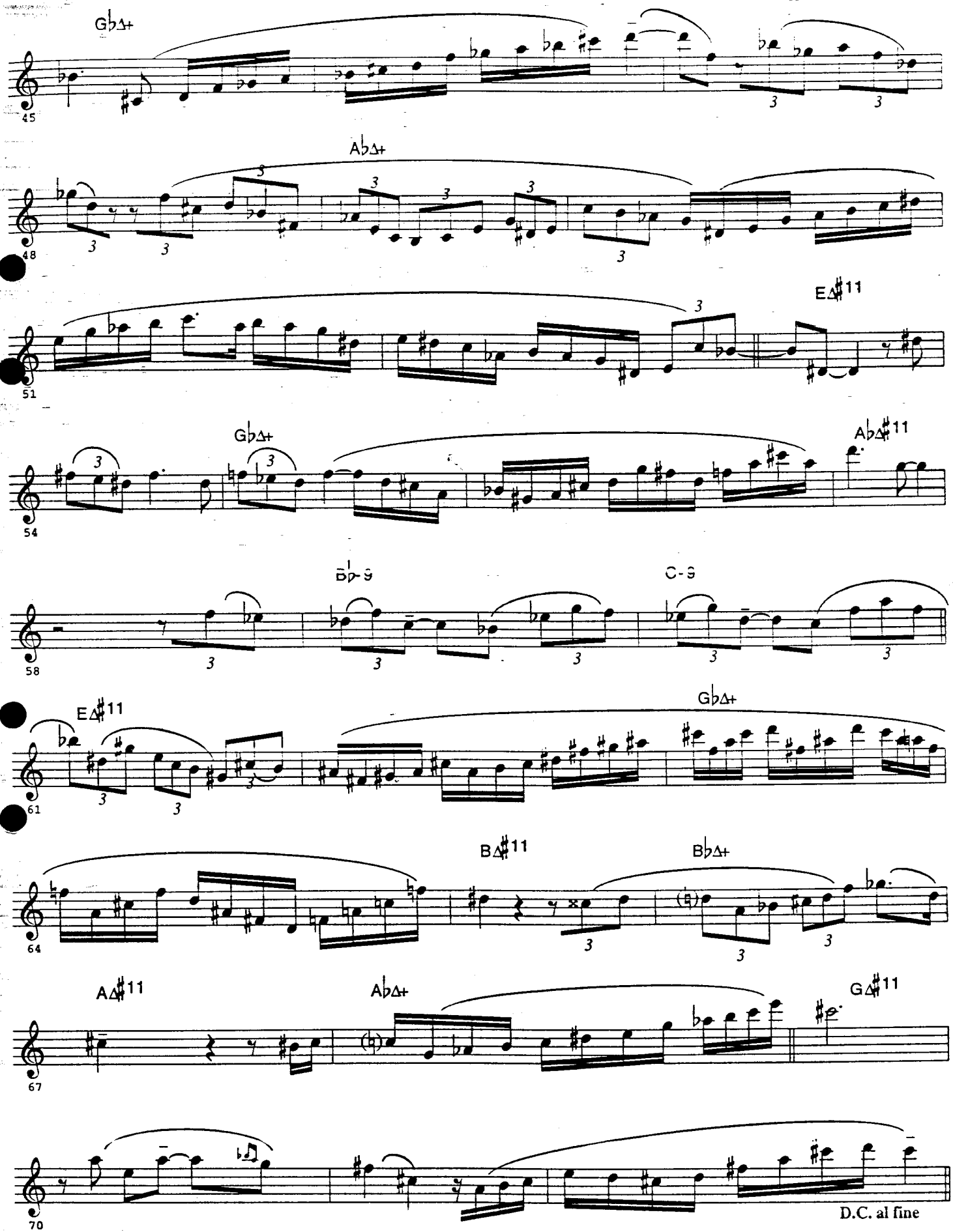

DΔ+
37
AΔ+
GΔ+
41
DΔ+
45
DΔ+
49
53
GΔ+
57
DΔ+
61
AΔ+
GΔ+
65
DΔ+
69
D.C. al Fine

Matawan

Medium Tempo Jazz Swing ♩ = 132

Walt Weiskopf

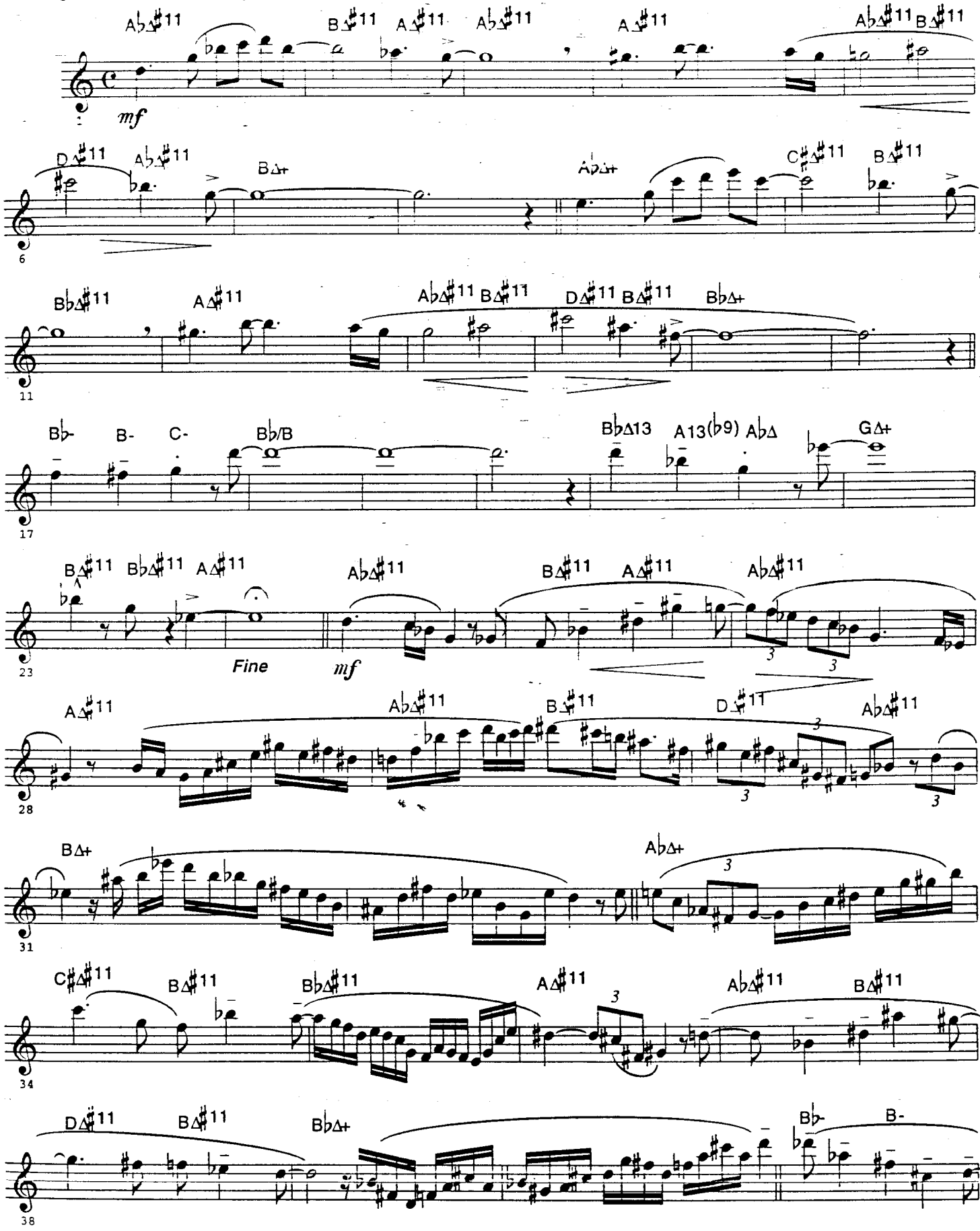


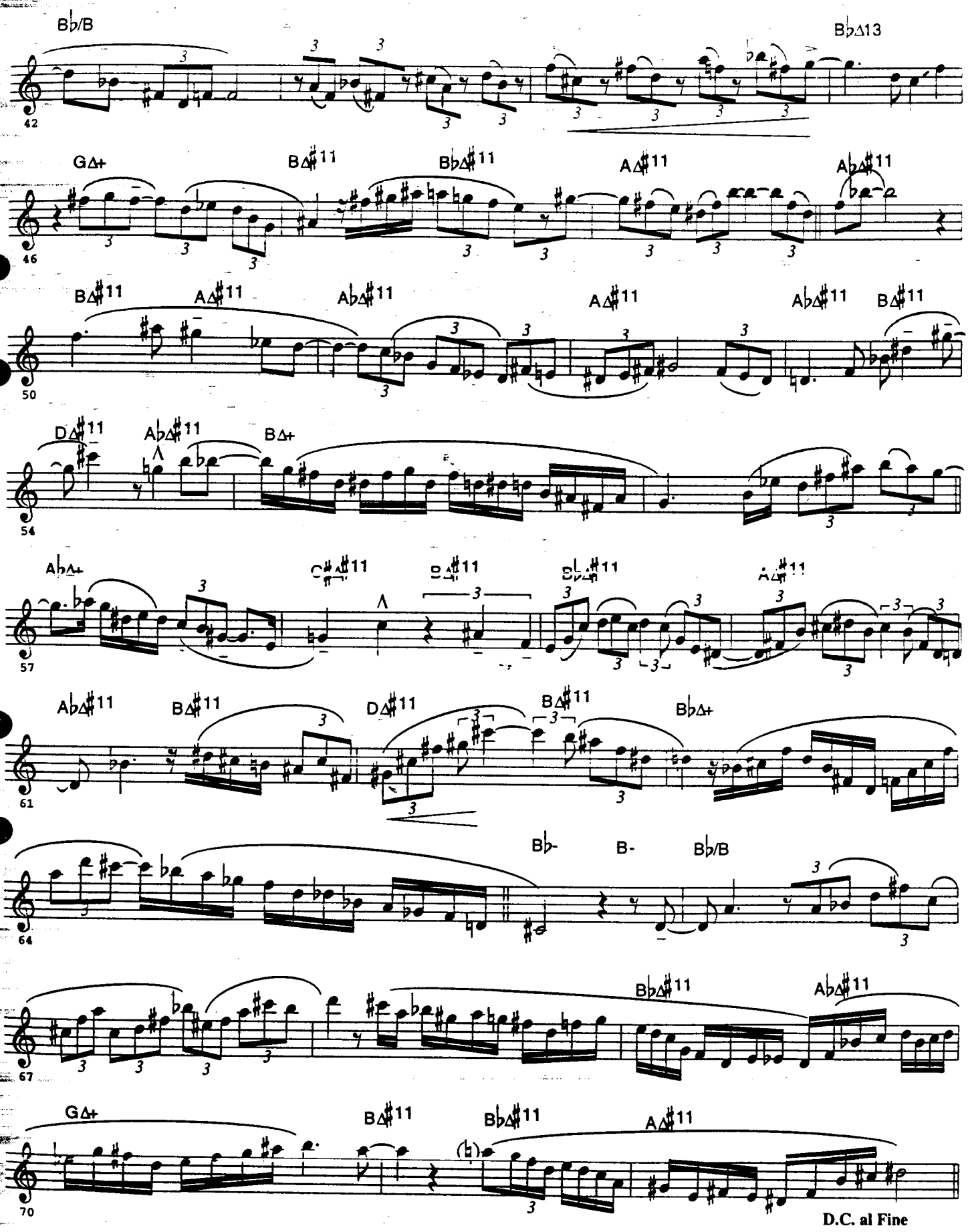

G♭Δ+
45
A♭Δ+
48
EΔ♯11
51
G♭Δ+
A♭Δ♯11
54
B♭-9
C-9
58
EΔ♯11
G♭Δ+
61
BΔ♯11
B♭Δ+
64
AΔ♯11
A♭Δ+
GΔ♯11
67
70
D.C. al fine

Imagination

Quasi Bossa Nova ♩ = 120

Walt Weiskopf




B♭/B
B♭Δ13
42
GΔ+
BΔ♯11
B♭Δ♯11
AΔ♯11
A♭Δ♯11
46
BΔ♯11
AΔ♯11
A♭Δ♯11
AΔ♯11
A♭Δ♯11
BΔ♯11
50
DΔ♯11
A♭Δ♯11
BΔ+
54
A♭Δ+
57
AΔ♯11
A♭Δ♯11
BΔ♯11
DΔ♯11
BΔ♯11
B♭Δ+
61
B♭-
B-
B♭/B
64
B♭Δ♯11
A♭Δ♯11
67
GΔ+
BΔ♯11
B♭Δ♯11
AΔ♯11
70
D.C. al Fine