Technical Manual

Ideas stolen and presented by
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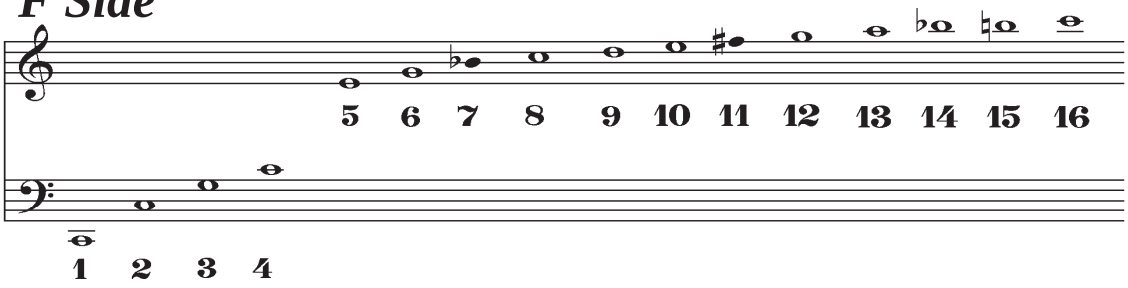
How the Horn Works

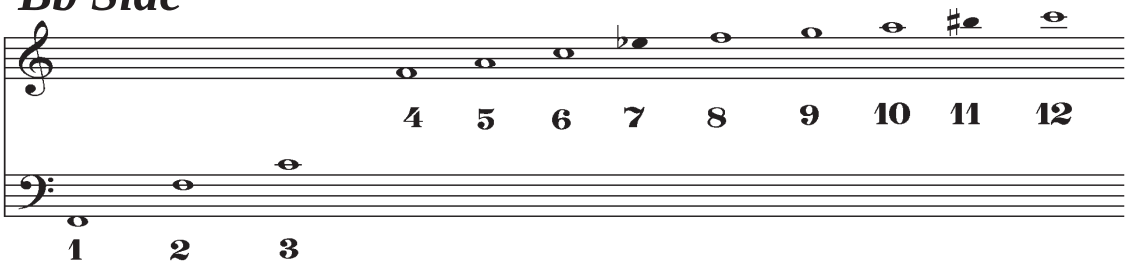
Harmonic series

Simply put, the harmonic series is the pattern of open notes on the horn. The intervals in the harmonic series are the same for every key. Here are the two series applicable to the double horn:

F Side



Bb Side



Fingerings

Figuring out fingerings is very simple if you know how the valves work and how far the desired note is from one of the open partials. For example: B natural is ½ step down from the open partial C, therefore it is fingered 2nd valve because 2nd valve lowers the pitch by ½ step. Each valve lowers the pitch of the horn by a set amount (See the chart below). With few exceptions, fingerings should default to the open partial.

Valve(s)	Step(s) Down
2	½
1	1
1 2 or 3	1½
2 3	2
1 3	2 ½
1 2 3	3

How To Play The Horn

It's all about air!

All wind players know how important air is, but understanding how to use air correctly and efficiently is another story. Sometimes seeing and experiencing good air production and support is the best tool to learn by. **The best embouchure in the world is silent without air.**

Step 1 to developing solid air:

A simple exercise, like inhaling for 4 counts and exhaling for 4 counts while concentrating on the following 3 points, will aid in creating a positive habit for breathing.

*** Open Mouth**

*** Open Throat**

*** Breathe to the bottom**

Step 2 to developing solid air:

Breathing without the horn is one thing. Utilizing the air efficiently while playing is another. Develop exercises in which you must use air. For example:

Use air to "make notes change"
Using valve combinations:
F Side: 0, 2, 1, 12, 23, 13, 123
B♭ Side: T23, T12, T1, T2, T0

Embouchure Set-up & Mouthpiece Placement

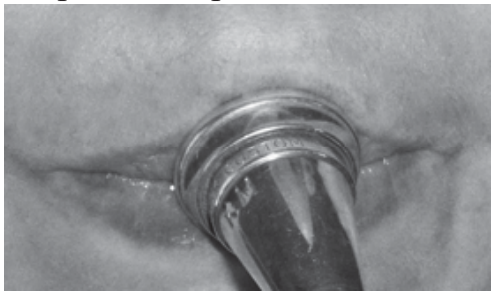
Basics:

1) "Puckered Smile" – Corners firm, lips together, bottom lip slightly rolled in.
2) Mouthpiece should generally be placed 2/3 on the upper lip and 1/3 on the lower lip in the center of the mouth, angled slightly downward (depending on the angle of the teeth)

Illustrations:

Puckered Smile:

Proper Mouthpiece Placement



Key Points:

1) Set-up should be horizontally centered, depending on the teeth.
2) 2/3 upper and 1/3 lower lip (or 1/2 and 1/2) in the mouthpiece
3) Should be relaxed in appearance – if it looks hard it probably is.

Things to Remember:

1) The "Umm Puhh" Method – For proper set-up of embouchure, pre-mouthpiece, set your mouth in the following manner:

   Step 1 – Say "Ummm" (the lips should press together evenly in an "M" shape).

   Step 2 – While keeping the corners firm Say "Puhh" (the center of the lips should pucker slightly).

2) When placing the mouthpiece to the lips – hold the mouthpiece by the shank with the thumb and index finger – this allows you to see the proper placement and reduces the leverage they have on the mouthpiece so you don't shove it.
3) Practice in front of the mirror placing the mouthpiece.

Proper Playing Posture

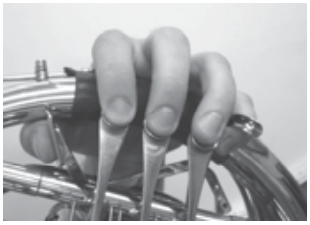
Basics:

1) Left Hand: On the grip, fingers curved onto the valve paddles, thumb under lead pipe on the thumb valve, and pinky around the pinky hook.

2) Right Hand: In the bell, fingers and thumb together, hand slightly curved placed against the side of the bell away from the player with the weight of the horn on the thumb and index finger.

Proper Sitting Position:

Proper Left Hand Position:



Proper Right Hand Position:

Key Points:

1) The horn should be brought to player, not the player to horn.

2) Right Hand position GREATLY AFFECTS INTONATION.

3) Left Hand – Keep the fingers close to the keys at all times.

Playing the Horn

Things to Remember:

1) Often the horn is too large and heavy for young students at first. It is important that you "bring the horn to you" - not slouch or over-extend to get the mouthpiece to your lips.

2) Horn on/off the leg – As previously mentioned the horn is rather heavy for young players so it is recommended for you to rest it on your thigh. Height adjustment can be made by moving the right foot forward or backward and increasing or decreasing the bend of the knee.

3) Hand Position is often one of the most important, misunderstood, and disregarded problems with young horn players. Proper hand position is imperative to the intonation and characteristic sound of the horn. Too many times I have heard band directors complain about the horrible sound and intonation of their horn sections, all of which could be fixed by proper hand position.

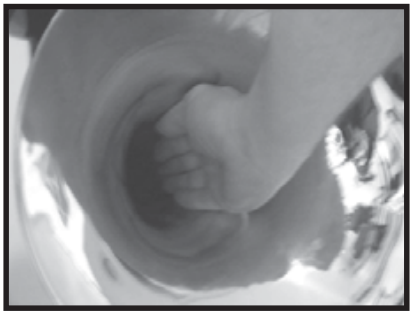
   For the Right Hand use a 3 step approach.

   Step 1 – wave the right hand like a "princess in a parade" (fingers together)

   Step 2 – use the index finger to point to the bell brace.

   Step 3 – place the hand in the bell with the thumb under the bell brace and lift the horn parallel to the ground (so the weight is on the back of the hand) then let it back down – shifting the weight to the thumb.

Once and for all, **This Is THE Correct Way**:



YES!

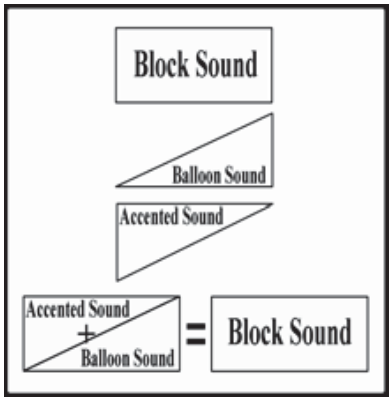
NO!

NO!

Articulation

Clear articulation is imperative, especially for horn players whose bells face away from the audience. The sound must travel back to the wall then finally out to the listener. An unclear attack turns into "blah" by the time it travels the whole distance.

Block vs. Wedge Sound



Horn players are renowned for producing round and beautiful sounds; however, they are also notorious for missing notes! As a result, horn players have a tendency to "test the waters" before fully committing to a note, resulting in what we like to call "mushrooming," "wa-wa" or "ballooning" the sound. If it were to be drawn it would look like this: ◿ While it may be pretty, it is not clear and makes clean entrances nearly impossible. The ultimate shape of sound for clarity and uniformity is a "block sound" with a clear "square" front and back. Like this: ▭

Here is the trick: Begin the note with an accent (▱) but do not let the note taper. Add this: ◿ to this ▱ and get ▭ ; as represented in the chart.

Depth of Sound and Center of Pitch

Without depth of sound, proper articulation will only produce the beginning of the notes. A good and compact sound is the result of digging into the core of the sound.

Image 1

Often students play with a very shallow sound which does not project. Imagine a cone, the deepest point is in the center. By targeting the deepest point of the cone, more of the core of the sound is exposed which produces a much more solid and satisfying result.

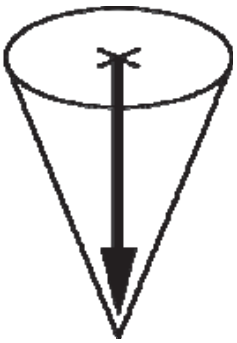
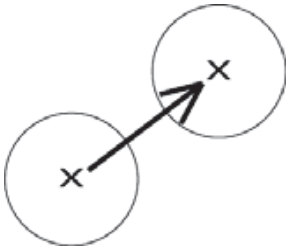


Image 2

In addition to depth, there is a center to every pitch - a point at which the pitch rings and projects the maximum amount. Imagine a pitch as a circle or a cone with an x in the middle. Everything within the circle is part of the pitch, but only the center (where the x is) produces the maximum core of sound. It is important when changing notes to change from center to center.



Other Things To Think About

Rhythmic Subdivision

Correct and exact rhythm is a goal for every ensemble player. The pitfalls of poor subdivision multiply in proportion to the number of players in a group. If one player is "guessing" at the rhythm the entire group suffers. Don't be that player! Proper rhythmic subdivision and understanding is the key! Here are some ideas that can point you in the right direction to this problem:

1) *Recognize the Macro-beat or "Big-Beat."* In 4/4 the "big-beat" lands on 1, 2, 3 and 4. Everything else is a subdivision of this beat.
2) *Subdivide to the micro-beat.* Feeling eighth notes within quarter notes greatly increases the chances of interpreting rhythms correctly.
3) *"Bop" through difficult and potentially unclear sections.* "Bopping" is a technique by which the player plays only the beginnings of each note, effectively focusing on placing the beginnings of each note in the proper alignment with the others.
4) *Slow the tempo of a section way down.* Slowing a section down allows you to fix numerous mistakes, not the least of which is rhythm.

Intonation

Intonation is often one of the more obvious and overlooked aspects of young horn players. Most young players don't even know what the word intonation means – let alone how to play in tune! Intonation should be as high a priority as rhythm and correct pitch. A good ear is essential and aural skills are imperative to the proper development to horn players. There are many ways to do this…here is what has worked for me.

#1 – Know what "in-tune" is. - What does it feel like….what does it sound like?

#2 – Know your options for change.

1) Move the slide (Sharp – Pull Out; Flat – Push In)
2) Move the bell hand (Sharp – cover; Flat – open)
3) Drop or raise jaw (Sharp – drop; Flat – raise)
4) Alternate fingering (ie. 3 vs. 1/2)

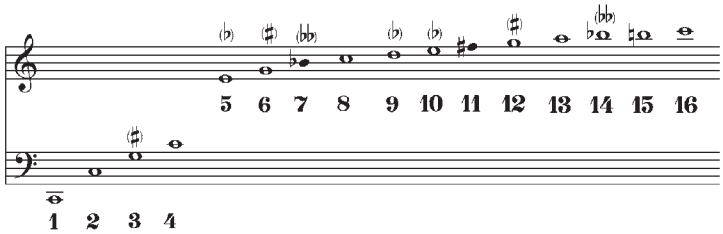
#3 – Use your ears. – If there are "bumps" or it sounds bad…its probably out of tune!

Play the follow game with your friends

1) They play a pitch and move it sharp or flat and you follow them and match them.
2) You play a pitch and they find you.

#4 – Arm yourself with Knowledge

1) Know about the intonation "problems" with regard to the harmonic series. These intonation "problems" are, in fact, caused by our interpretation of them with regards to equal temperament. The equal tempered scale was originally conceived so that the space between the twelve chromatic notes of the scale would be the same and keyboard instruments would be able to modulate at will between the different keys without having to retune. Here is an illustration of which notes of the natural harmonic series are incongruent with the equal temperament system:



2) Certain parts of a chord need to be treated differently depending upon their function.

Some Basics:

*In a Major Triad the Fifth is raised (2 cents) and the Third is lowered (14 cents).

*In a minor chord only the Third is raised.

Transposition

Due to the early history of the natural horn crooking system, composers wrote for the horn in various keys. As a result, modern horn players must transpose these parts to play them on the modern horns that are in the key of F. Here are some of the most common transpositions in order of frequency.

E Flat

- Transpose down 1 whole step

E Natural

- Transpose down a ½ step

C

- Transpose down a Perfect 4th

B Flat

- Transpose down a Perfect 5th

D

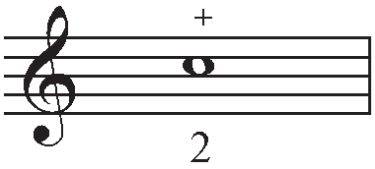
- Transpose down a Minor 3rd

Stopped Horn

Another technique horn players are commonly asked for is stopped horn. It is indicated by a + over a note (the opposite is indicated by a o).

Technique: The right hand is cupped – completely covering the bell

Transposition: The indicated note is fingered ½ step down (generally on the F horn – although other fingerings may produce better intonation)



Tips on How to Practice

Practicing

Consistency is the key! Practicing 30 minutes every day is better than 3 hours in one day. Practicing is essentially building muscle memory and muscles. Consistent reinforcement is required to "keep the reservoir from evaporating."

For young players I recommend at least 45 minutes a day – everyday!

Practice what you don't do well!

All too often students tend to practice all the stuff that that they are good at and rarely get around to practicing the stuff they do not do well.

Always Practice with a metronome!

As mentioned earlier, rhythmic accuracy is imperative to correct playing.

Start Slowly

⇒ Practice it only as fast as you can play it perfectly.

⇒ Music at its most basic level is just a progression of pitches. Diagnose where the problem is and fix it. Usually you will find it is just the transition between two notes that is the problem, so….practice those two notes…

Be encouraging to yourself.

Don't be too lenient or overly tolerant, but don't get frustrated if things are not working….be patient, give your brain a chance to process the information.

Keep it interesting.

Playing the same thing over and over again can be boring! Here are some ideas that might make things a little more interesting:

⇒ Practice different articulations

⇒ Accent notes that are weaker than others

⇒ Practice different rhythmic patterns

⇒ Practice it in another key

⇒ Loop a set of notes

Sample Practice Chart

Keeping track of what and how much you are practicing is essential to developing good and efficient practice habits.
Try it for a week and see how much more focused you are on the task at hand.

Week of:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Warm-up/Daily Drill								
Breathing	5 min		5 min	5 min		5 Min		
Lip-Slurs	Long and Low 10 min	Bai Lin #1 10 min	Long and Low 10 min	Bai Lin #2 10 min	Long and Low 10 Min	Bai Lin #1 10 min		
Articulation	Artic 5 min	Chromatics to c 10 min	Artic. 5 min			Chromatics to c 10 min		
Scales	F - 10 min Bb - 5 min	F - 5 min G - 5 min	Db - 10 min		G# - 5 min	Scale Sheet 15 Min		
	Chromatics to g 5 min		Trills 5 min	Singing tones 5 min	Path Ex. 10 min	Long Wobbles 15 Min		
Etudes								
	Miersch #14 15 min	Mirsch # 14 10 min		Mirsch #14 10 min	Mirsch 5 min	Mirsch 15 Min		
Solo								
	Mozart 3 15 min		Mozart 3 20 min	Mozart 3 10 Min		Mozart 3 20 Min		
Excerpts								
			Till - 5 min			Till - 10 min		
Total Time	1:10	:40	1:00	:40	:30	1:40		5:40

Horn Maintenance

Oiling Valves

Sticky valves are a common occurrence even for the most experienced players. This can be avoided with regular oiling. This is inexpensive and easy to do in less than 2 or 3 minutes.

Products to use:

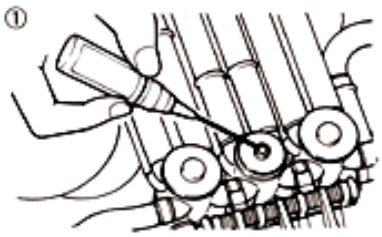
You will need two types of oil: a *thick* and a *thin*. DON'T PAY FOR THE EXPENSIVE "SPECIALTY" OILS FROM THE MUSIC STORES. Go to Wal-Mart or any department store and spend less than $5 for a suitable and clean product.

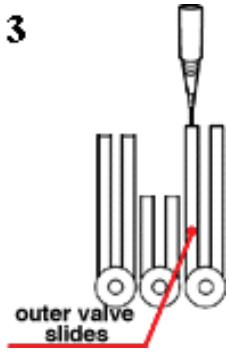
Thin Oil: Pure Paraffin – This is standard lamp oil. You can get a half-gallon for less than $2.

Thick Oil: 60% Paraffin, 40% *3-in-1 Oil* – you can get *3-in-1 Oil* at Wal-Mart or a hardware store.

How to oil valves:

1. Drip *thick* oil down on the bearings (image 1 and 2).
2. Pull the slides WITHOUT pushing the valves down. This sucks the thick oil into the bearings.
3. Drop *thin* oil into the outer valve slides (image 3).
4. Move the valves by pushing them up and down.
5. Repeat Step 3
6. Put the valve slides back in WITHOUT rotating the valves – This pushes the thin oil into the bearings and mixes it with the thick oil.





Greasing Slides

Stuck slides are another common occurrence and are usually a result of neglect. There are all sorts of products out there, but nothing seems to work as well as STP Oil Treatment, which you can get at any place auto supplies are sold ($3 and you have a lifetime supply of slide grease). Use a plastic bristled paintbrush (VERY cheap – the kind you find in water color paints or other children's art supplies) to "paint" grease onto the slides.

Equipment

Informational Flow Chart of Brands & Models of Horns

There are lots of different brands and models out there. Listed are the most common horns and where they fall in the spectrum of student horns vs. professional horns.

Brand (most common model(s)) (approximate price of a new horn)

⇦ Student Models **Professional Models ⇨**

---------- Conn (8D) ($4500) ----------

---- Holton (179) ($3000)
---- Paxman (Acadamy) ($3000)
---- Paxman (Series 4) ($4500)
------Finke (Westfalia/Americus) ($6000)
---------- Yamaha (?67/?68/?71) ($5000) ----------

Alexander (103) ($9,000) -------
Paxman (20/23/25) ($10,000) --
Schmidt ($12,000) ----------
Rauch ($20,000) ----------

In the Market for a Horn?

Are you looking for a new or used horn? Here are a few suggestions for where to go and what to look out for (for more check out http://www.io.com/~rboerger/newhorn.html):

- **Check out http://hornplayer.net**
  - This is basically a "horn player's classifieds" and should give you a pretty good idea of what the horn you are looking for will cost. The sellers are screened, will generally treat you very well, and often offer trial periods.
- **Be careful with EBay**
  - Not all sales/sellers are legitimate and some will try to sell you complete junk. Also, usually there is a reason they are selling it on EBay instead of one of the systems commonly used by horn players. In addition they generally don't offer trial periods.
  - A recent trend on eBay has been some guy under multiple aliases offering cheap Bb horns made in China (the brands, when listed, include **Parrot**, **Jin Bao**, **Bestler** (this guy is famous for his "I have a new silver plated Bb French Horn that I happened to acquire" line) or **Shinghai**). These horns have a stopping valve, but the seller often advertises them as "BRAND NEW DOUBLE HORNS -- CHEAP!!" Needless to say, the old rule of *caveat emptor* (let the buyer beware) applies strongly when you are buying a horn you can't try out from someone you don't know. If someone's trying to sell a 'new double' for $300, how good do you think the horn really is?
- **Work out a "test period" with the seller.**
  - Not all horns are made equal and no one wants to dump a lot of money into a lemon or a horn they will end up not liking. You wouldn't buy a car without a test drive.
- **Be careful of local stores**
  - You can more than likely get a horn SIGNIFICANTLY cheaper online from a reputable mail-order dealer
- **DO NOT buy a single-horn (F or Bb)**
  - Sure they are much cheaper, but the pitfalls are numerous. Chances are you already have a single-horn – double horns are a definite upgrade!
- **DO NOT buy an "unnamed horn" especially if it is sold at Wal-Mart!**
  - The market is being flooded with cheap Chinese made horns. With VERY few exceptions, these horns are not good – avoid them.
- **Get help from a Horn Player**
  - You wouldn't have someone who has never driven before tell you what is good or not good about how your car drives.

Mouthpieces

There are hundreds of mouthpieces out there. All of them offering different things and most of them are bad! Mouthpieces are often included with new and used horns and over the years schools have collected quite a few of them. Here are the mouthpieces I recommend:

Holton-Farkas Mouthpieces

These are the mouthpieces designed by Philip Farkas. 90% of the world's horn players started on these mouthpieces. They are by far the best both for price and quality (about $25). The two most common models are the MC and MDC. I recommend starting with the MC.

Houghton Mouthpieces

These mouthpieces offer a little more flexibility in specific choices. They cost significantly more ($100). The choices are numerous but I recommend the H1

Farkas MC

Farkas MDC

Houghton H-1

Mutes

There are 2 types of mutes commonly used by Horn players: 1) The standard Straight Mute and 2) the Stopping Mute.

Straight Mutes

They come in various designs. No transposition is required. For young students the "Stone-Lined" (red and white) is more than acceptable.

Stopped Mutes

This mute uses the same principals as the stopped horn (transposition) – except with a mute. The mute makes stopped horn more stable.

Mellophone

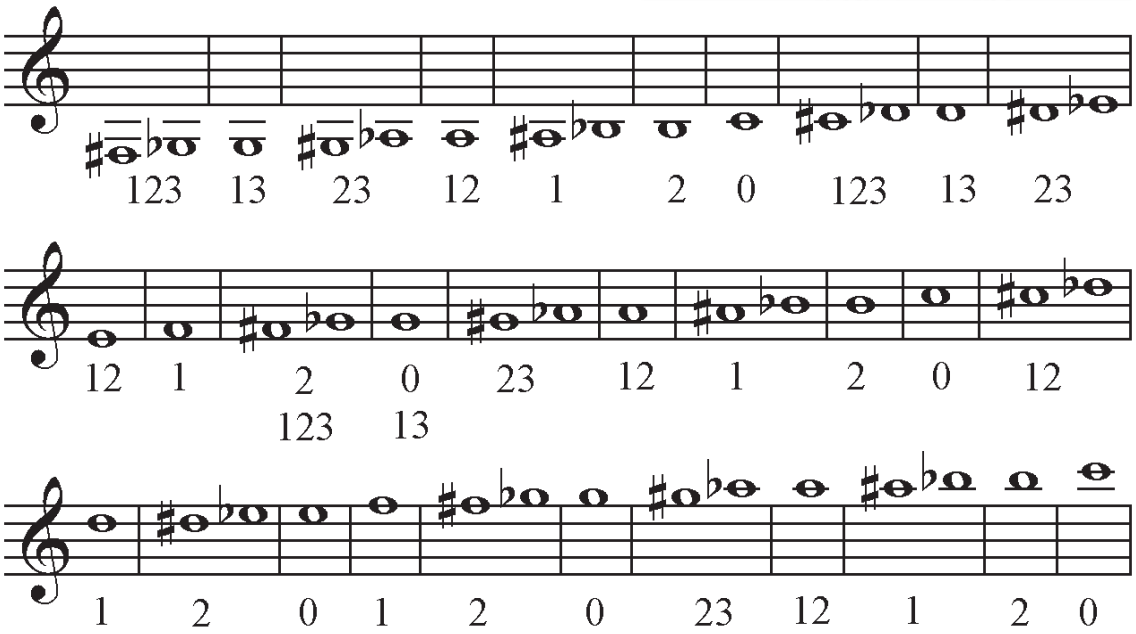
An unfortunate fact in a horn player's life is the Mellophone. Marching Band is a way of life and thus the Mellophone. Another unfortunate fact is the impact the Mellophone has on horn player's embouchure. The angle the horn must be held for marching and the often different mouthpiece create habits that are counter to an optimal and efficient embouchure set-up for the Horn.

Softening the Blow

To avoid complicating the differences between the instruments, use an adaptor so the student does not have to change mouthpieces.

Fingerings

For the most part fingerings are the same as the Bb trumpet. The F Mellophone uses the same fingerings as the F side of the horn.

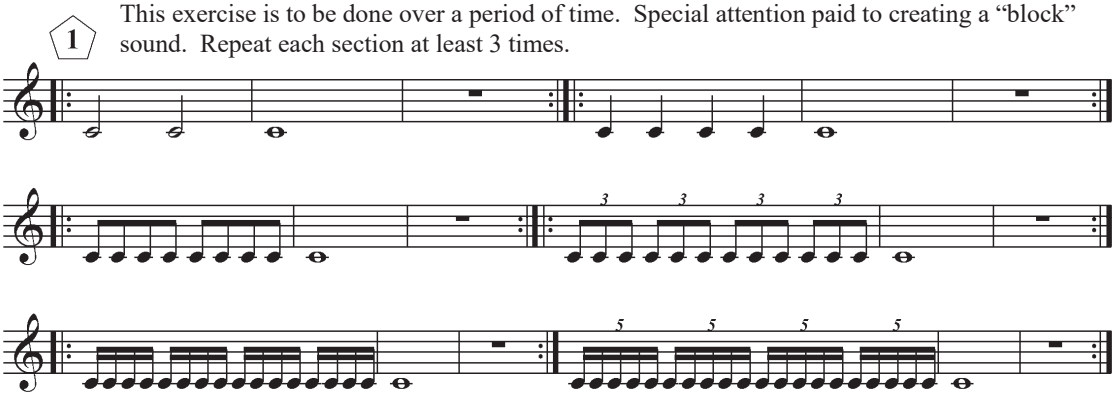


Lip Slurs

All of these exercises should be done with a focus on a continuous airstream and a consistent sound. Use all valve combinations (0, 2, 1, 12, 23, 13, 123)

Articulation Exercises

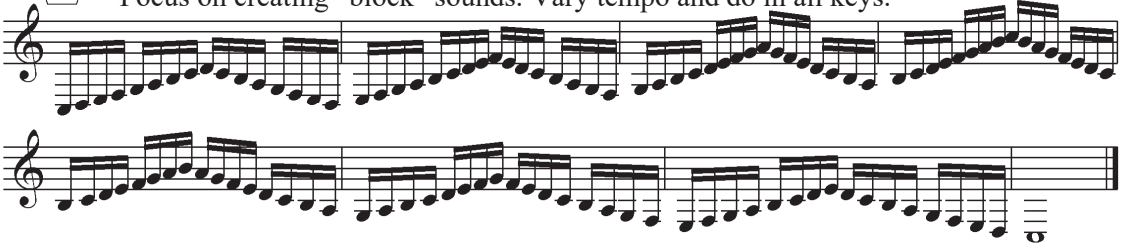
Remember the box vs. wedge concept, and the accented beginning concept. Try to maintain consistency.



Farkas Scales

2

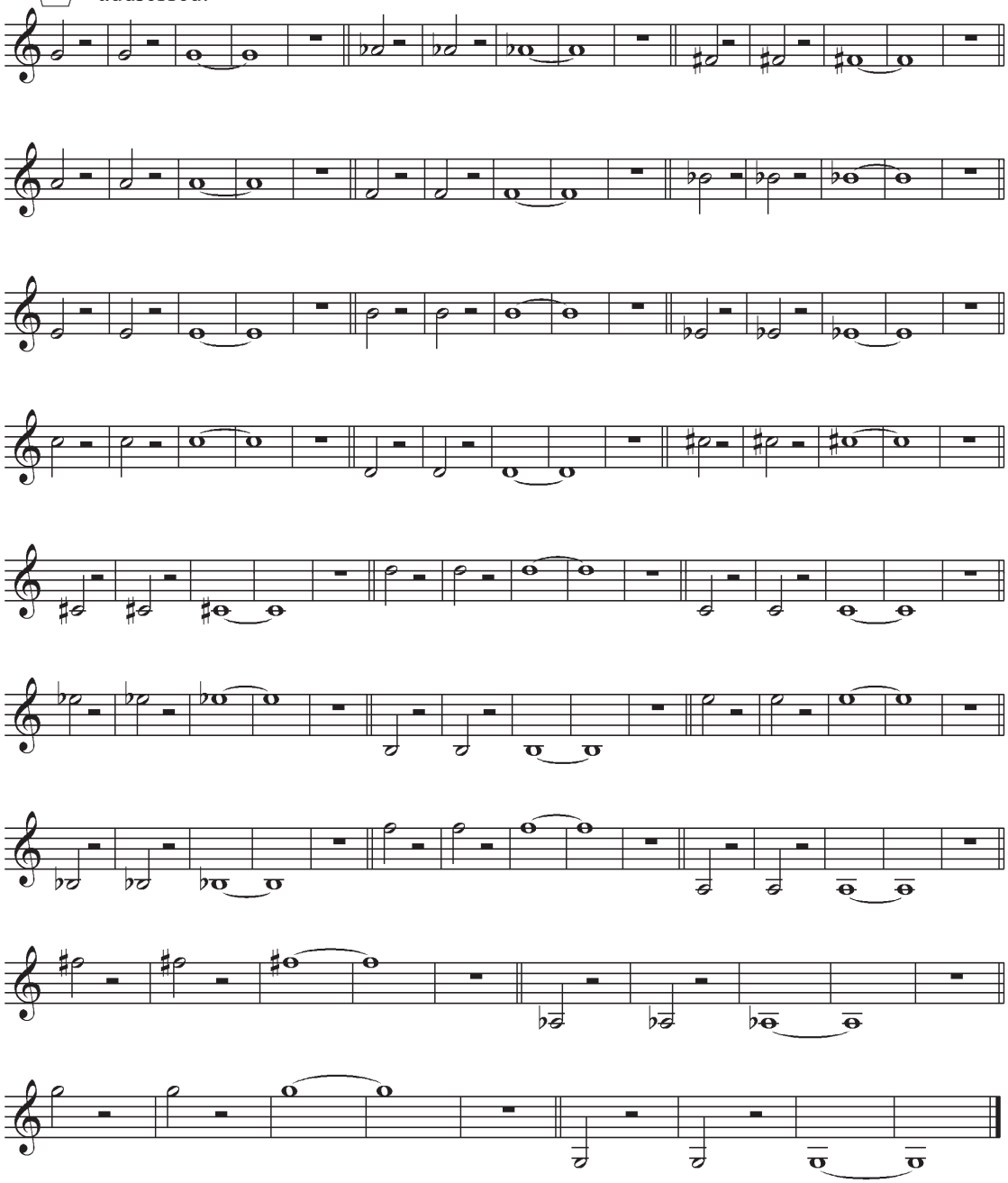
Focus on creating “block” sounds. Vary tempo and do in all keys.



Forest Standley Exercise

3

Many believe this to be a long-tone and endurance exercise. However, in addition to this, if it is used to focus on the beginnings of notes, many articulation issues can be addressed.



Long Tone Exercises

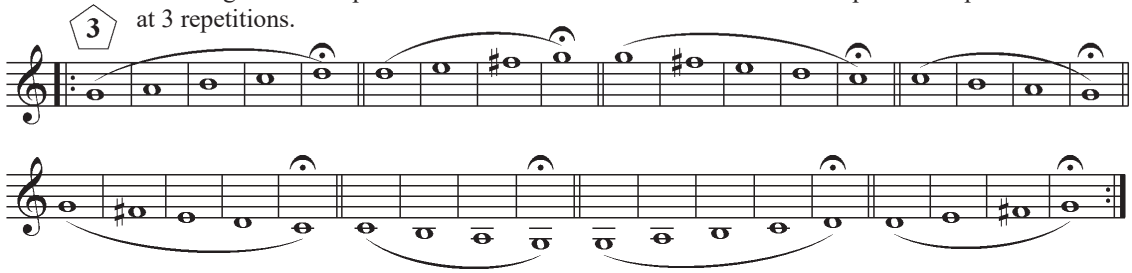
1 Pay attention to a constant air stream and a consistent sound in all registers

2 The inverse of the previous exercise. Focus on "flicking" the small muscles while maintaining a constant air stream and a consistent sound in all registers

The Craig Morris Long Tone Scale

This is primarily an endurance exercise that has an impact on many other things at the same time. For the first couple of weeks, repeat 3 times, then add one repetition every couple of weeks following until six repetitions are achieved. Then move the exercise up a half step and start over at 3 repetitions.

3



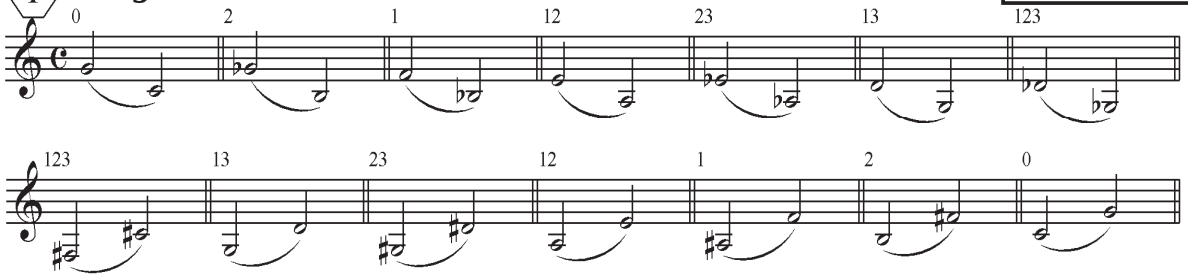
Long-tone scales

Repeat the first measure 3 times and the last one at least 2. Do all in one breath. Vary the dynamics, but maintain a rather slow tempo.

Spaulding Variations

2 Things to Remember:
Constant Air
Consistent Sound

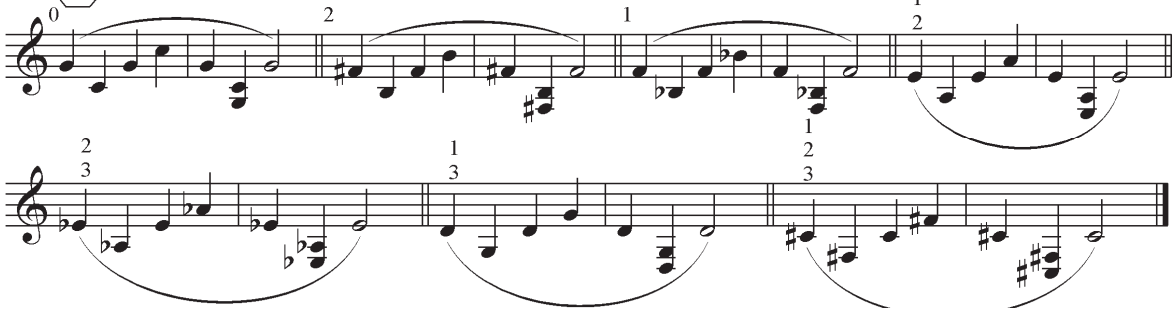
1 *Long and Low*



Continue with: T23, T12, T1, T2, T0, 123, 13, 23, 12, 1, 2, 0, T23, T12, T1, T2, T0

1a. 1b. 2a. 2b.

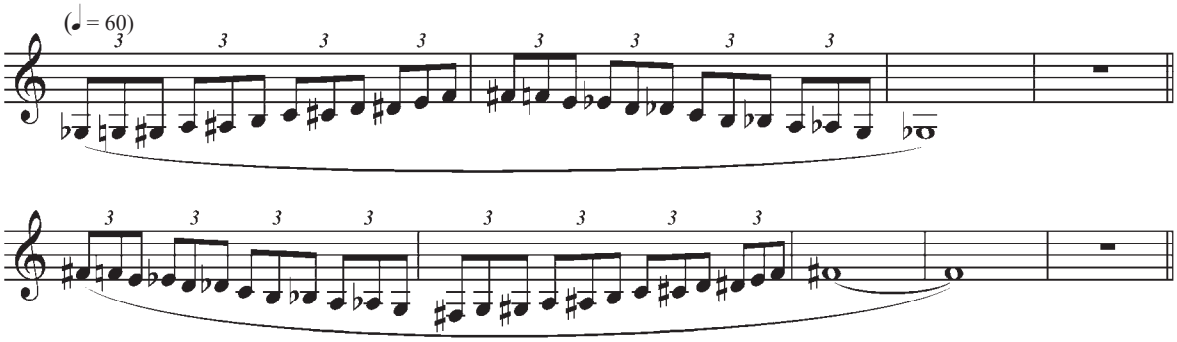
2



3

Chromatics

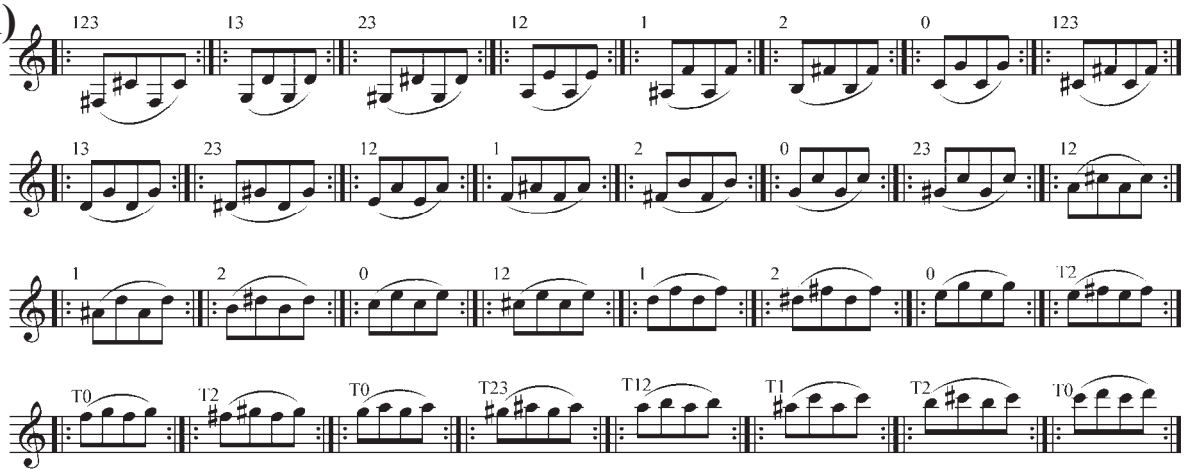
To be played in all keys progressing up chromatically to 3rd space C.
Can be played articulated to work on consistent articulation.



Trill Flexibility Exercise

Less Movement = Efficient Playing. Concentrate on minimizing the movement of the embouchure. Play each measure repeated 6 to 8 times then rest the equivalent amount of time.

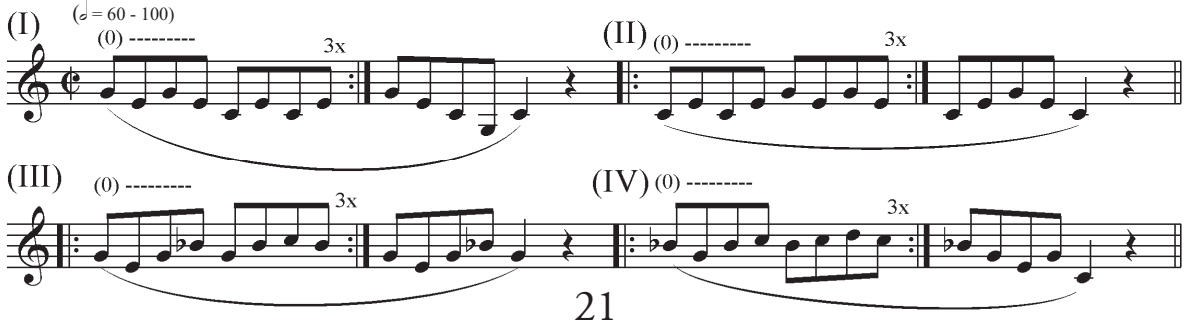
A)



B)

Teuber Flexibility Exercise

Repeat each section on each valve combination.



Breath Control Arpeggios

Strictly observe rests (rests are as important as playing)

Bai Lin Flexibility Studies

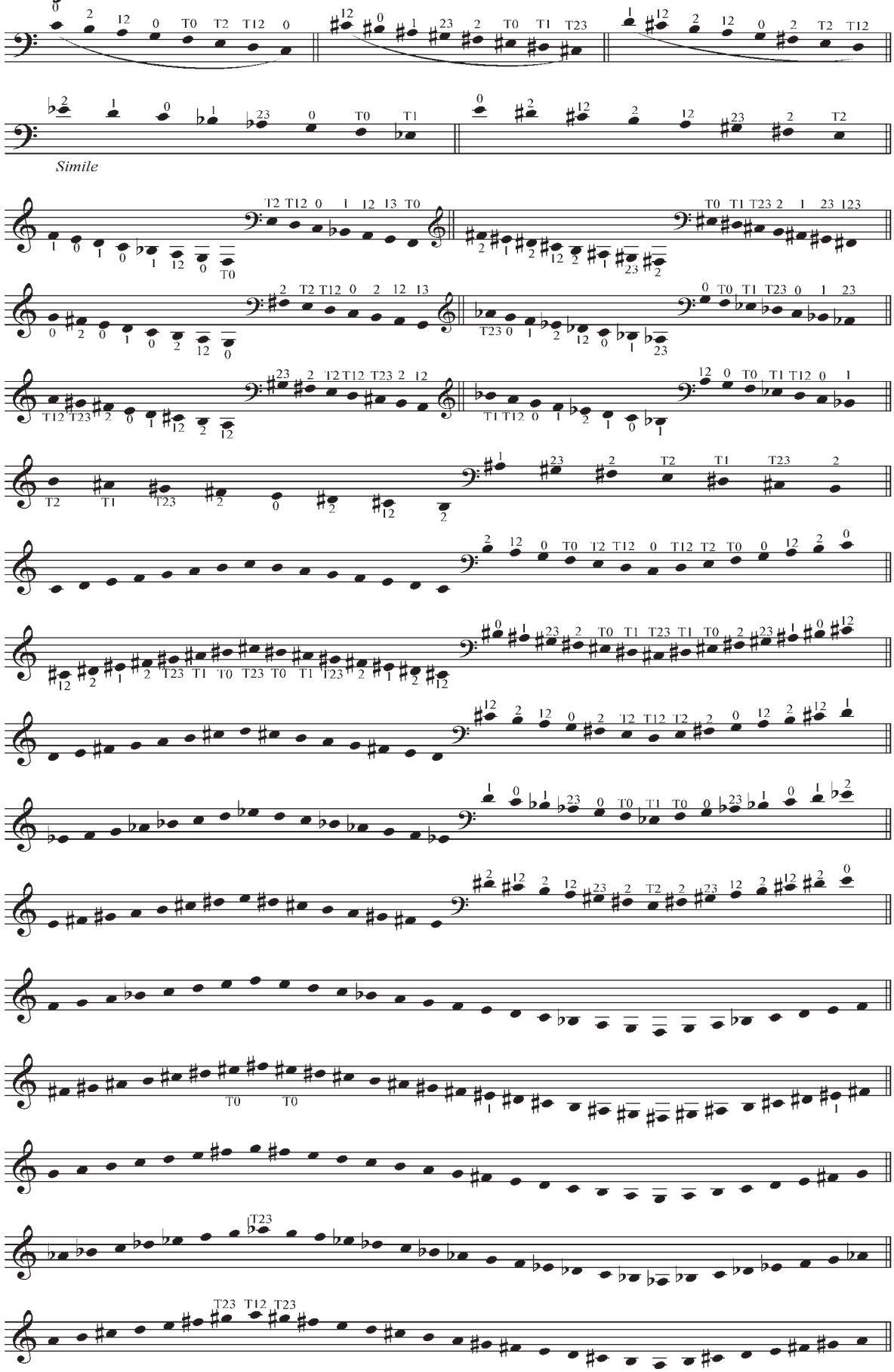
As with all previous exercises, focus on constant air and a consistent sound.
All letters are to be done on all valve combinations (0, 2, 1, 12, 23, 13, 123)

I.

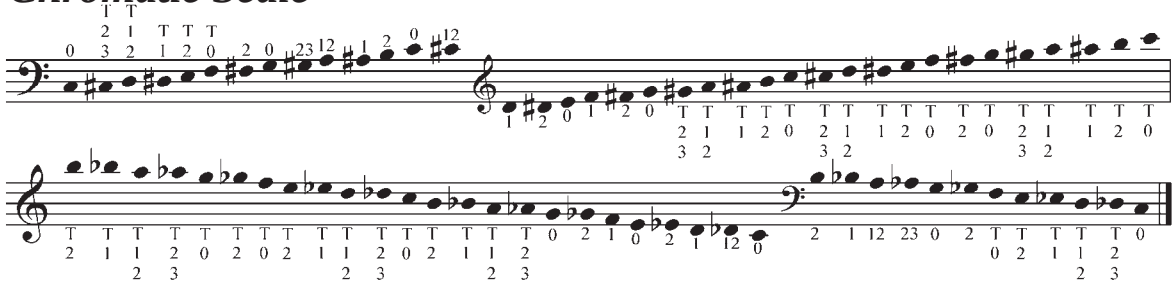
II.

Scales

Major Scales



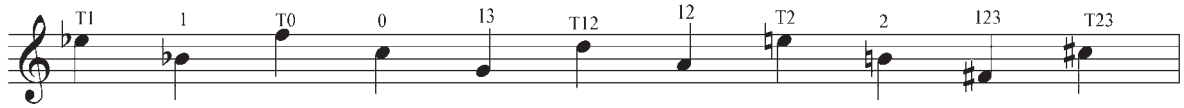
Chromatic Scale



Trills

Must be done with a metronome! Notes must start on-time and end on-time - "hang-overs."

Continue the exercise through the circle-of-fifths using the given fingerings:



Variations

1.

2. It is very important that the trill stop right in tempo. This is good practice for Mozart and Haydn

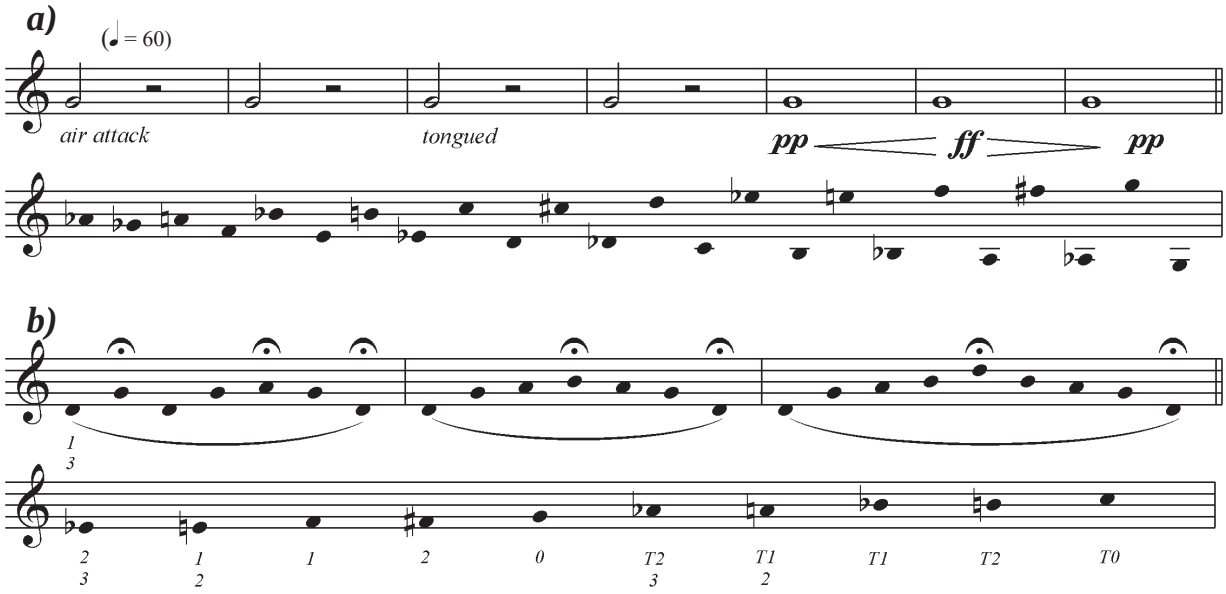
Miscellaneous Exercises

Interval Exercise

Focus on maintaining consistent articulation, sound and air in all registers.
Can also be played with varied articulations or all slurred.

Quality Tones

Focus on quality of sound. Air is the key; keep it moving through every note. Strive for a homogeneous sound.



High Register Exercise

Use normal fingerings and try to use as little increase in lip pressure for the last two notes as possible. Play only as high as is comfortably possible. Go for a focused, easy, and ringing sound.

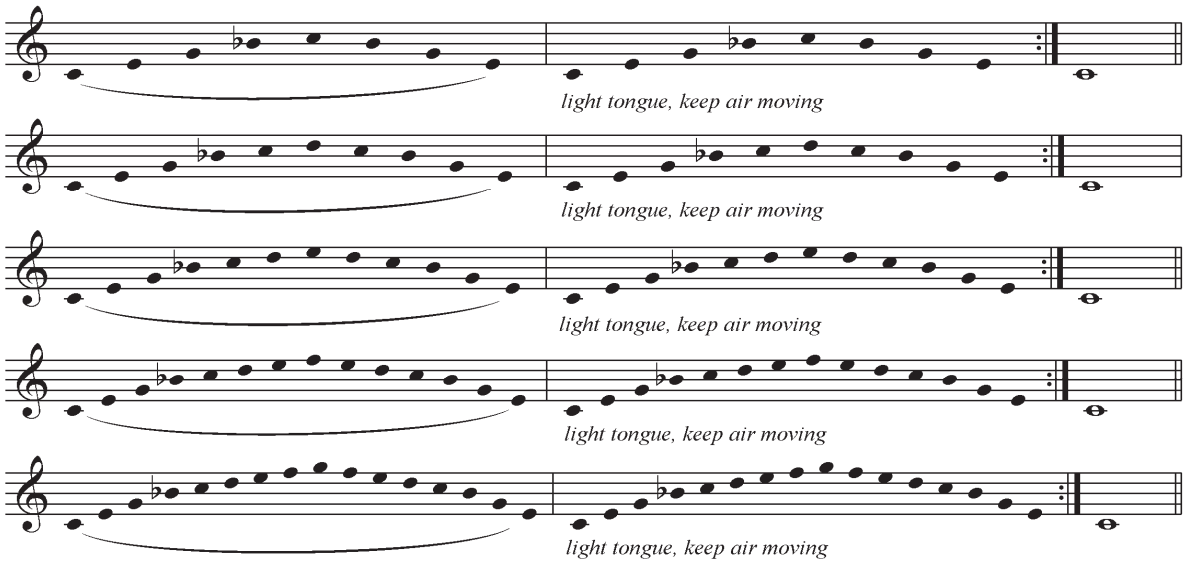
Mid/Low Register Exercise

Play each section with the indicated fingers then move on to the next section. Focus on keeping notes homogeneous. Constant air and consistent sound.

Path Exercises

These are exercise ideas that utilize the "Path to Great Horn Playing" as taught by Bill VerMeulen.
The emphasis should be placed on using AIR (vs. the chops) to change notes. Feel the pop of each of the harmonics.

a)



b)

c)

Expansion Exercise

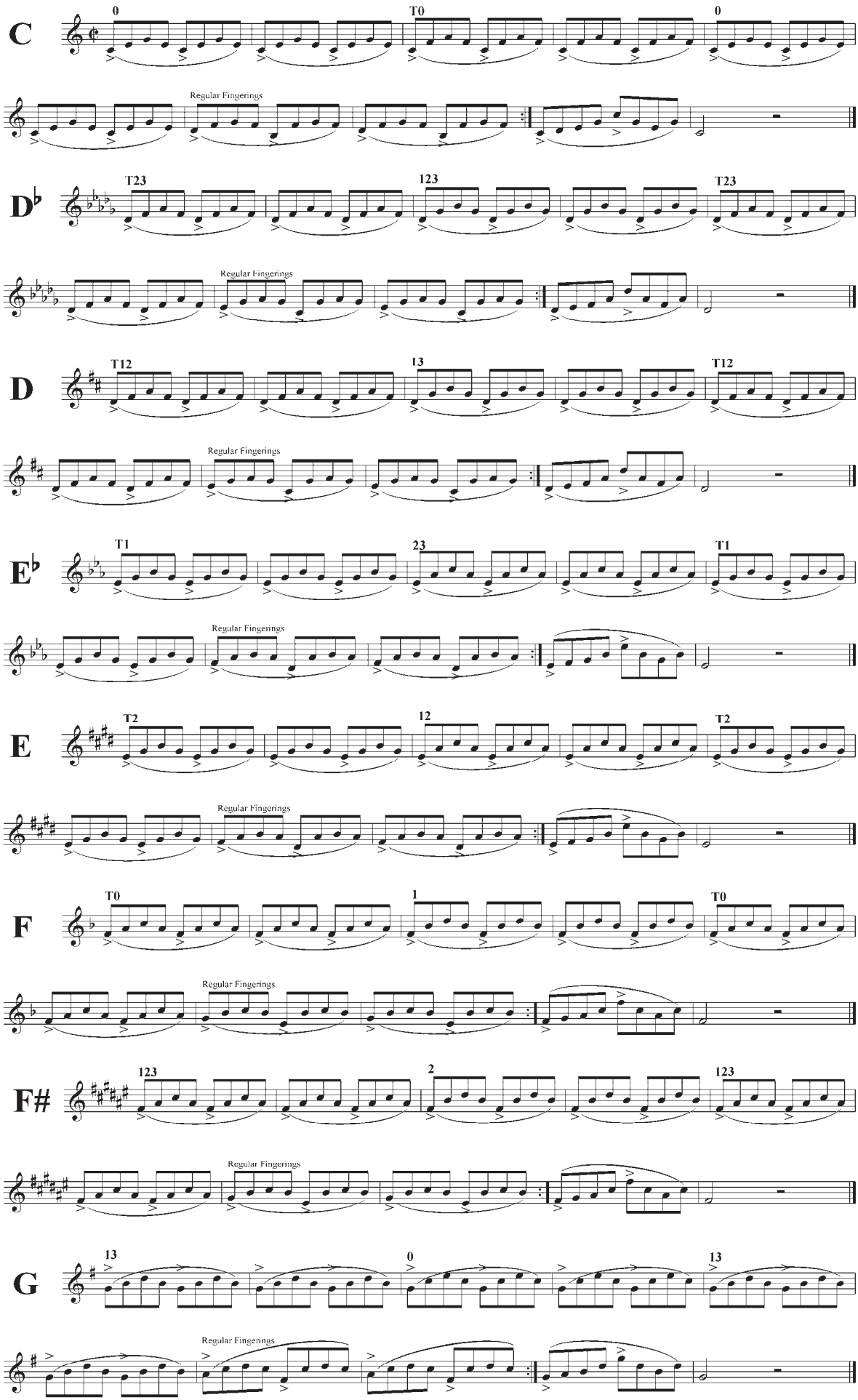
Consistent and constant airflow. Focus on using the air to make the notes change, not the chops.

Clarke Studies

Study No. 3

Purpose: Flexibility and Endurance

Instructions: Play slurred the first time through, using the notated fingerings, articulated with regular fingerings the second time. Use a metronome to insure rhythmic evenness.


C
0
T0
0
Regular Fingerings
D♭
T23
123
T23
Regular Fingerings
D
T12
13
T12
Regular Fingerings
E♭
T1
23
T1
Regular Fingerings
E
T2
12
T2
Regular Fingerings
F
T0
1
T0
Regular Fingerings
F#
123
2
123
Regular Fingerings
G
13
0
13
Regular Fingerings

A♭
23
T23
23
Regular Fingerings
A
12
T12
12
Regular Fingerings
B♭
1
T1
1
Regular Fingerings
B
2
T2
2
Regular Fingerings
C
0
T0
0
Regular Fingerings
D♭
T23
12
T23
Regular Fingerings
D
T12
1
T12
Regular Fingerings

Wobbles

Wobbles are meant to focus on developing an ease of transition through all registers.
Do these on all valve combinations: 0, 2, 1, 12, 23.
Start all slured, then vary the articulation and rhythm as you get more comfortable. Always use a metronome
The 3 indicates adding the the 3rd valve, however when playing the 23 combination, use 0 instead.

Machala/Wood

Level 1

Level 2

Level 3

Level 4

Variations

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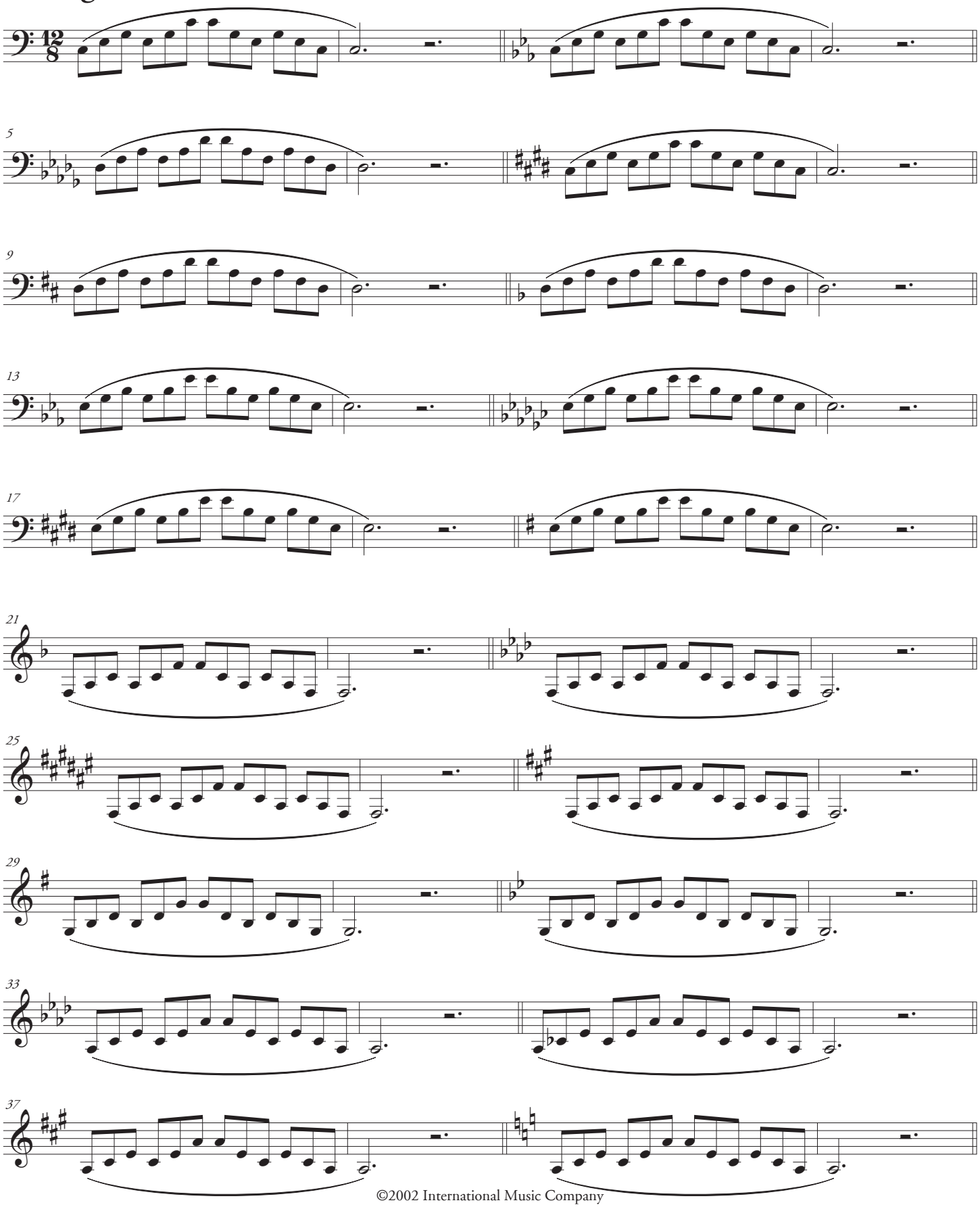
Sachs Arpeggios

from Daily Fundamentals for Trumpet

Michael Sachs

I. Single Octave



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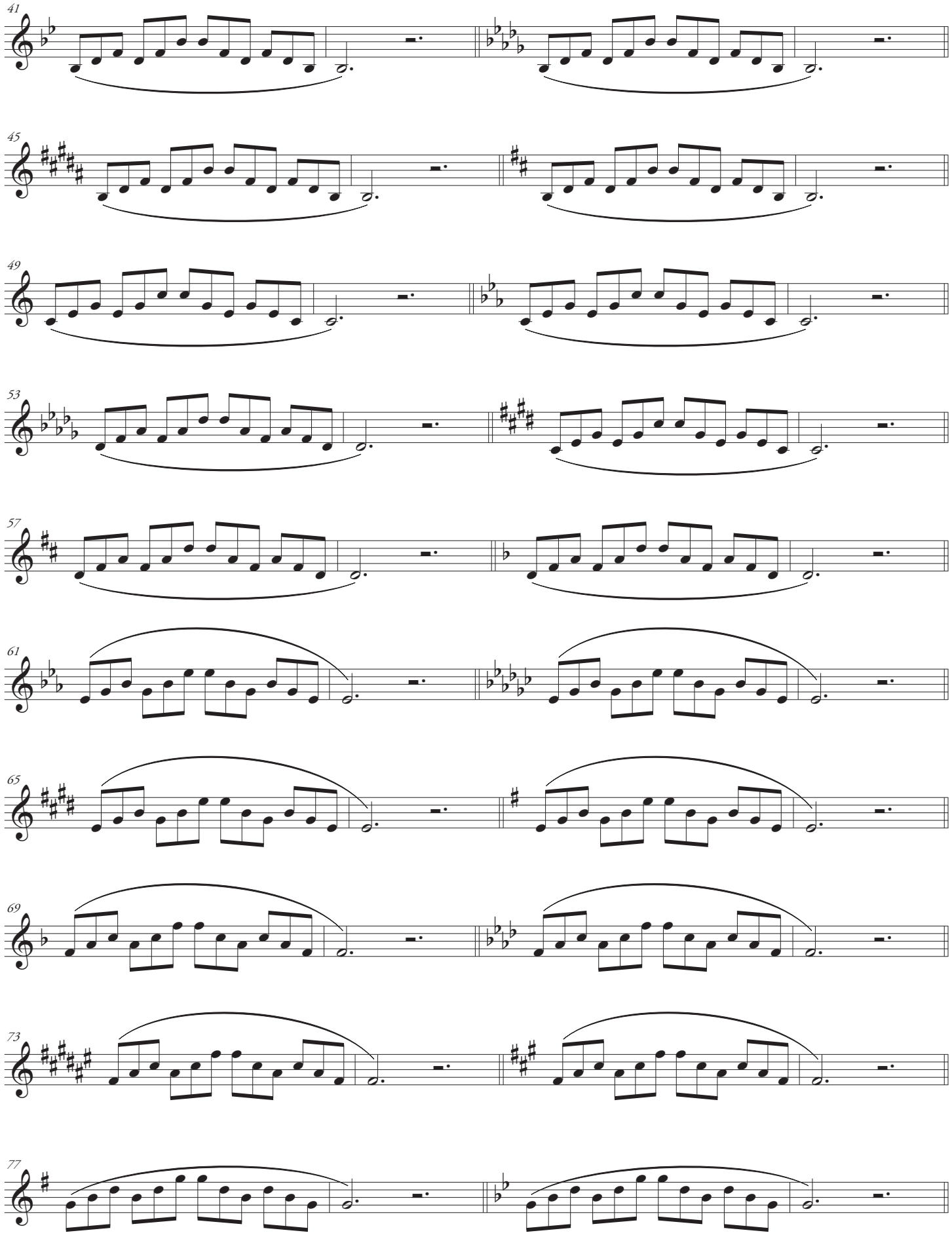
41
45
49
53
57
61
65
69
73
77

II. Extended

4

Extended Interval Studies

David Johnson's
Warm Up

10
Continue using circle of 5ths
11
Continue using circle of 5ths
12
Continue using circle of 5ths
13
Continue using circle of 5ths
14
Continue using circle of 5ths

Lip Slurs for Horn

A Progressive Method of Flexibility Exercises

Howard Hilliard

©2009 Hal Leonard

FIRST STUDY

Practice each Exercise from 8 to 16 times in one breath.

Press the fingers down firmly, and keep the lips moving; contract slightly in ascending, relax in descending.

REMEMBER all these Exercises must be played *very soft;* by so doing your lips will always be fresh and under control. If played loud, the opposite effect may result in permanent injury to the lips. The principle is the same as a Physician prescribing 3 drops of medicine which will cure, whereas a spoonfull will kill.

H.L.C. II 49

10
11
12
13
14
15
16
17
18
19
20
21
pp

ETUDE I

SECOND STUDY

Accent each group of four notes, to insure perfect rythm.

Commence each Exercise by slurring as marked, then practice them Single Tonguing very lightly; to become still more expert, try Double Tonguing.

Should certain Exercises prove more difficult than others, work on each until thoroughly mastered. Dont waste time on those that are easy.

REMEMBER that to improve, one must master difficulties each day.

H.L.C. II 49

ETUDE II

H.L.C. II 49

Carlos & Juanjo #3 &#4

Carlos & Juanjo #4 &#5

120 Melodious Etudes

for

Trombone

From the Vocalises of
MARCO BORDOGNI

Book One

Selected and Transcribed by
JOANNÈS ROCHUT

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cresc.
f
p
f
p
f

1

Hermann Neuling

Anmerkung: + einschl. ⌒ = gestopft. o = wieder offen

4

Moderato
f
p
f
p
mf
ff
ff
p
cresc.
mf
f
Tempo I
fz
fz
fz
mf
p
p
accel. string.
ff

FLEXIBILITY 1-A: THE CINCINNATI FACIAL

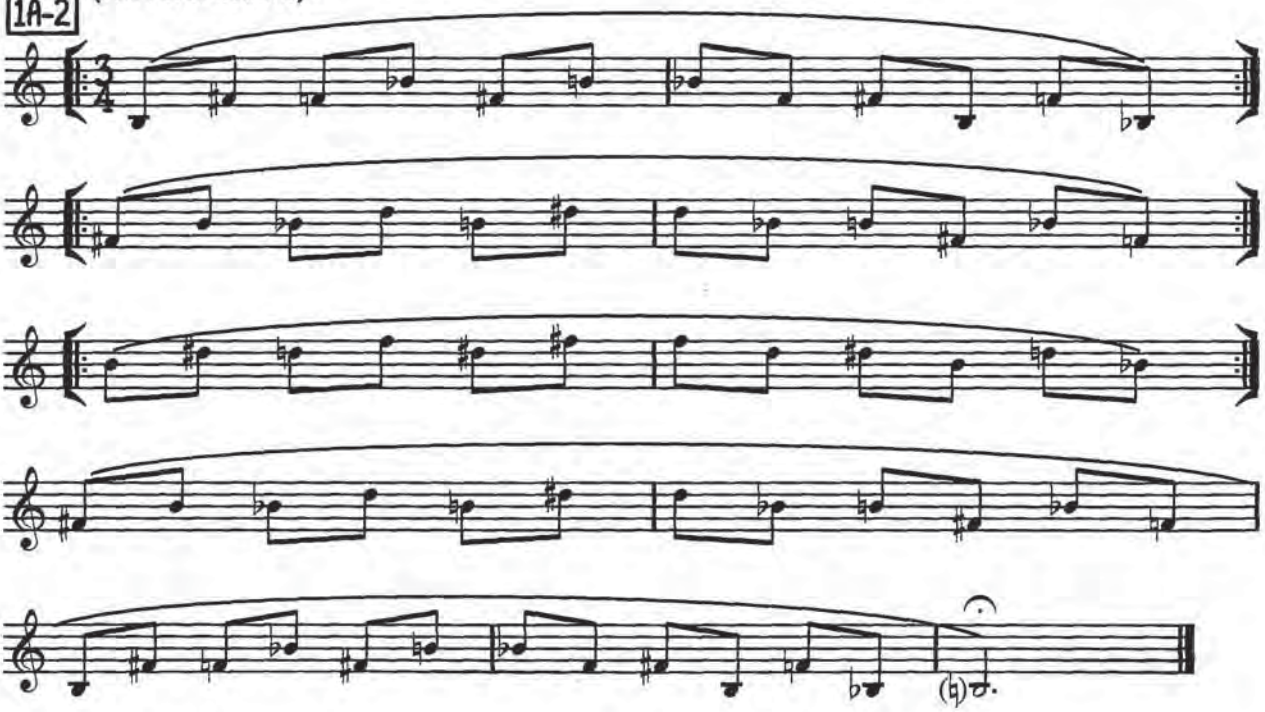
THE ALTERNATE FINGERINGS APPLY
TO ALL NOTES BEAMED TOGETHER

**PRACTICE AT OWN RISK
COMPOSED BY PROFESSIONAL
TRUMPET PLAYER IN LOCKED
PRACTICE ROOM.

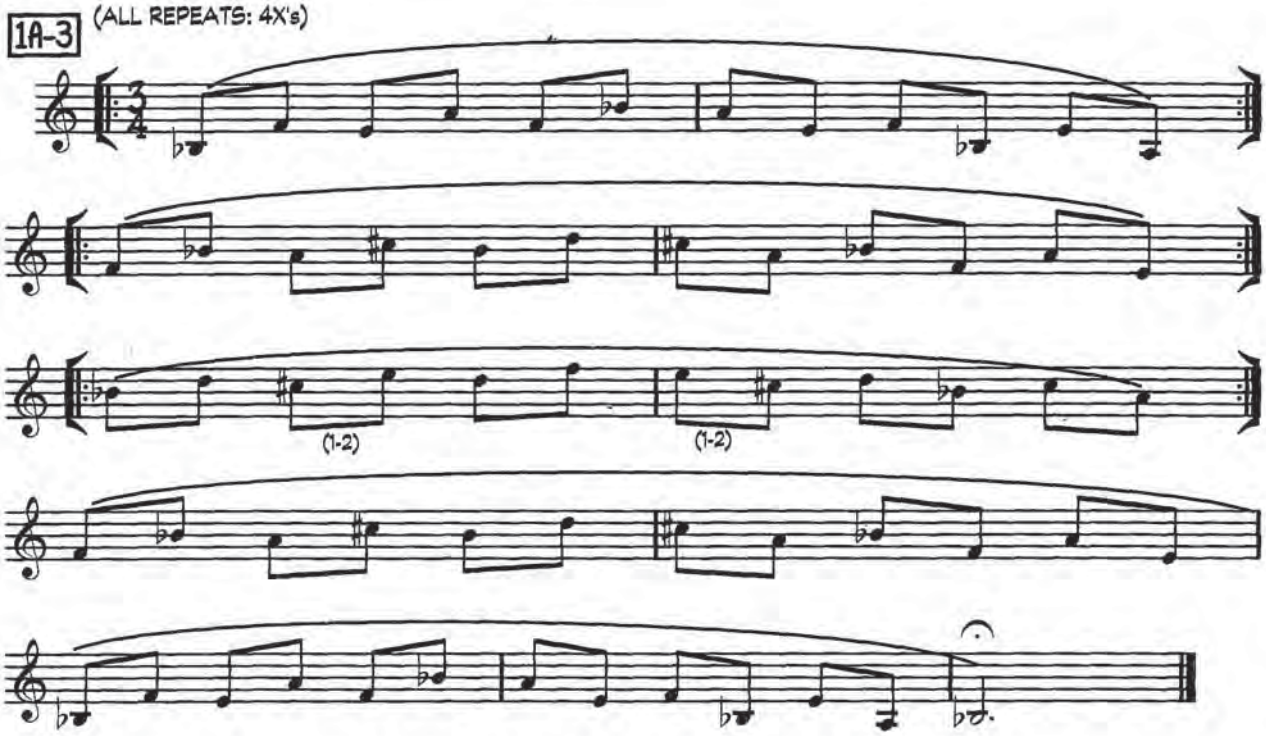
SCOTT BELCK

1A-1 (ALL REPEATS: 4X's)

1A-2 (ALL REPEATS: 4X's)

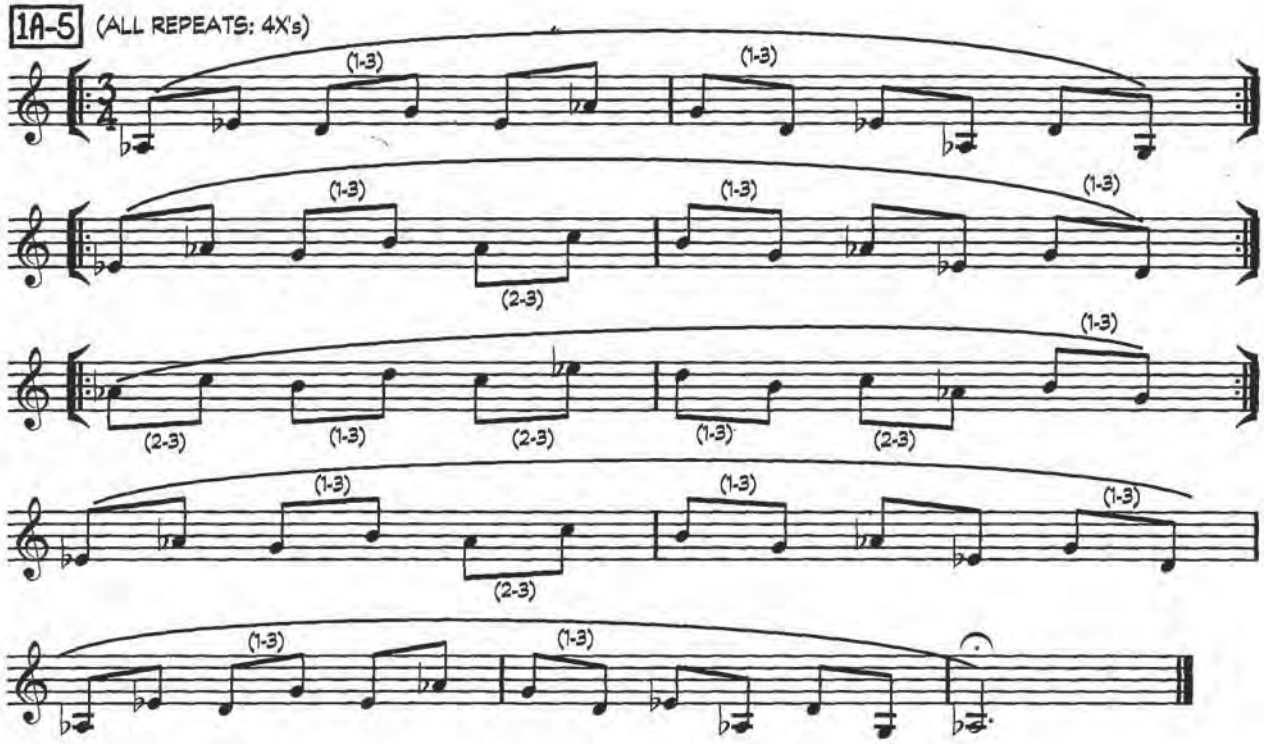


1A-3 (ALL REPEATS: 4X's)



1A-4 (ALL REPEATS: 4X's)

1A-5 (ALL REPEATS: 4X's)



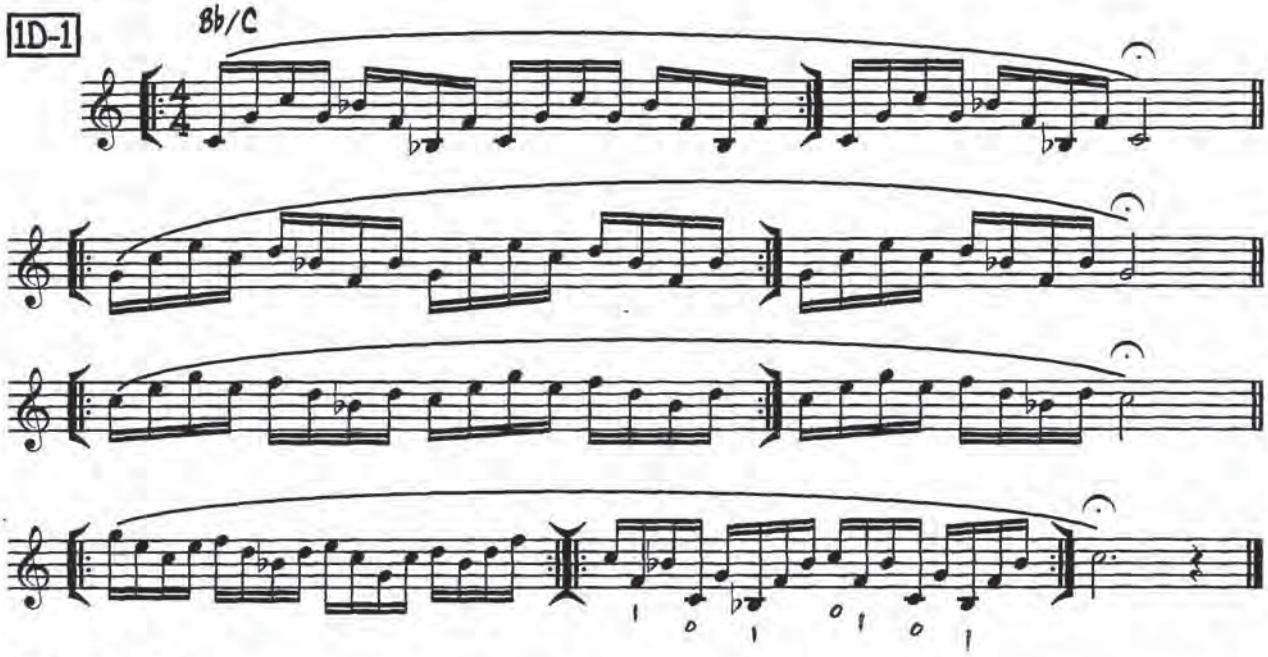
1A-6 (ALL REPEATS: 4X's)

FLEXIBILITY 1-D: ORBICULARIS REDEMPTOR

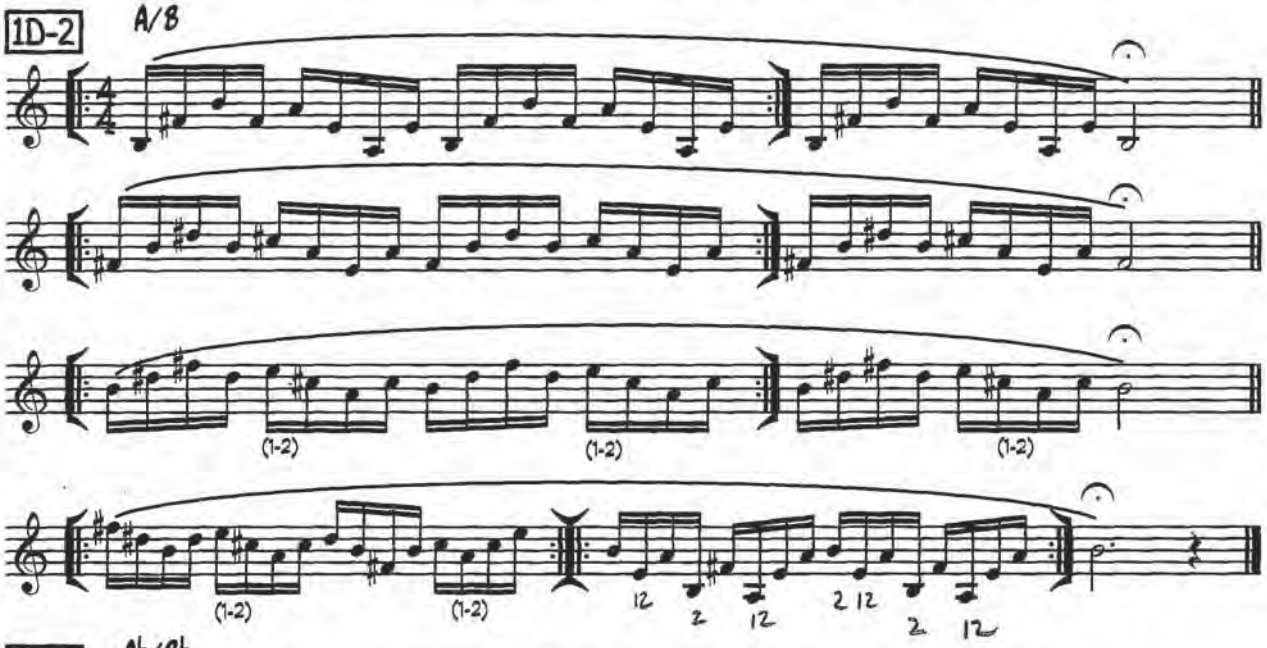
ALTERNATE FINGERINGS APPLY TO ALL NOTES BEAMED TOGETHER

VENI, VIDI, DUBBA C

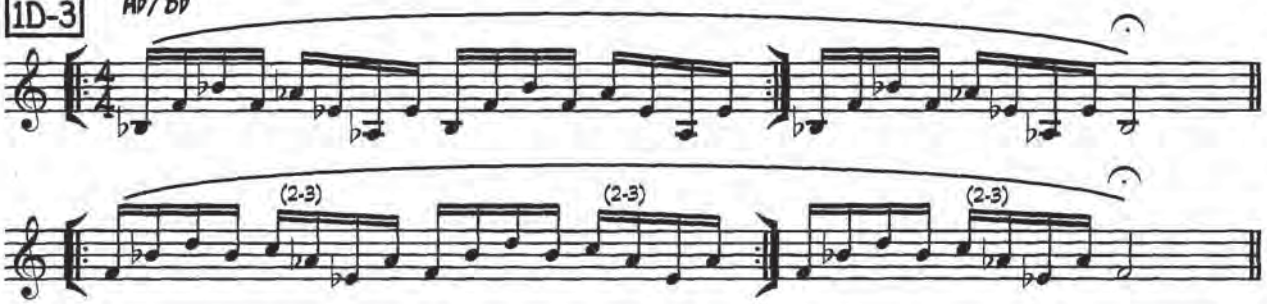
1D-1 Bb/C



1D-2 A/B



1D-3 Ab/Bb



ALTERNATE FINGERINGS IN THIS MEASURE ONLY APPLY TO NOTES THAT CAN ACTUALLY BE FINGERED THIS WAY. IF YOU FIGURE OUT HOW TO DEFY THE LAWS OF PHYSICS, GREAT! OTHERWISE, DON'T BE *TOO* LITERAL - THAT PART IS **REALLY HOLDING YOU BACK.

Tonleiter-und Intervall-Studien.

125 Übungen in allen Kreuz-Tonarten für Ventilhorn.

C-dur Übungen.

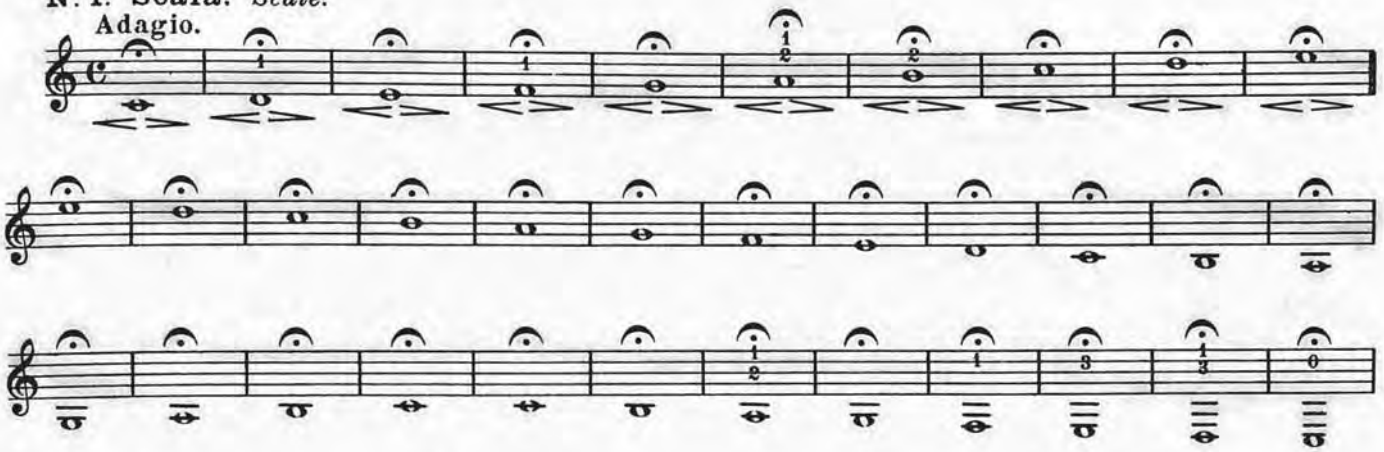
Studies on Scales and Intervals.

125 Exercises in all Keys with sharps, for the Valve-Horn.

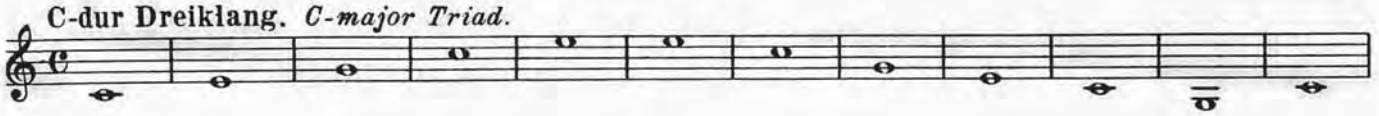
Exercises in C-major.

Nº 1. Scala. *Scale.*

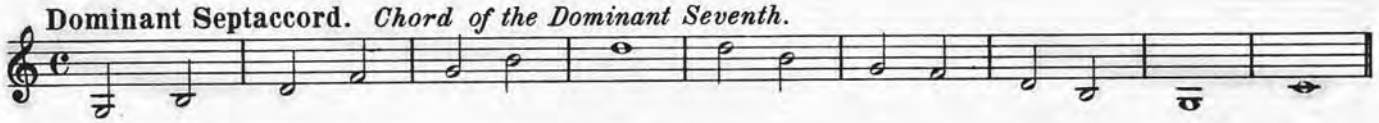
Adagio.



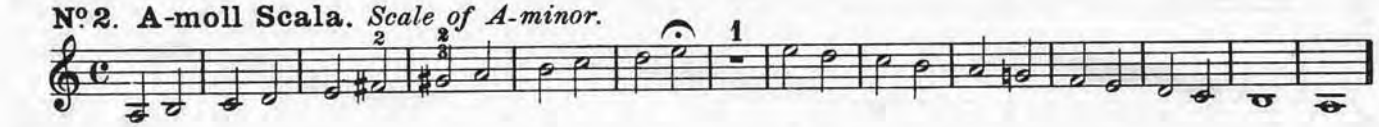
C-dur Dreiklang. *C-major Triad.*



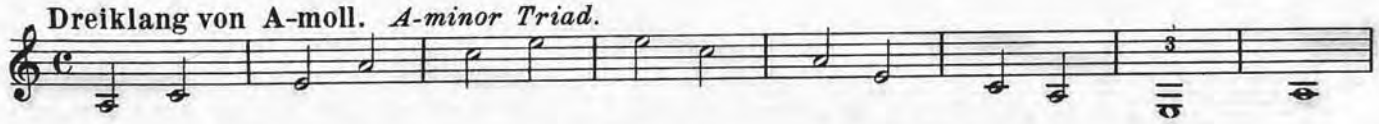
Dominant Septaccord. *Chord of the Dominant Seventh.*



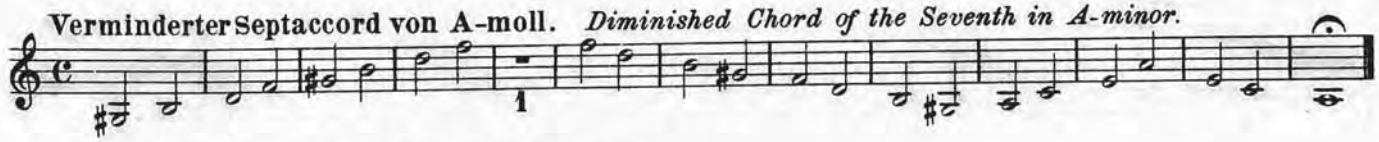
Nº 2. A-moll Scala. *Scale of A-minor.*



Dreiklang von A-moll. *A-minor Triad.*



Verminderter Septaccord von A-moll. *Diminished Chord of the Seventh in A-minor.*



Nº 3. C-dur Übung. *Exercise in C-major.*

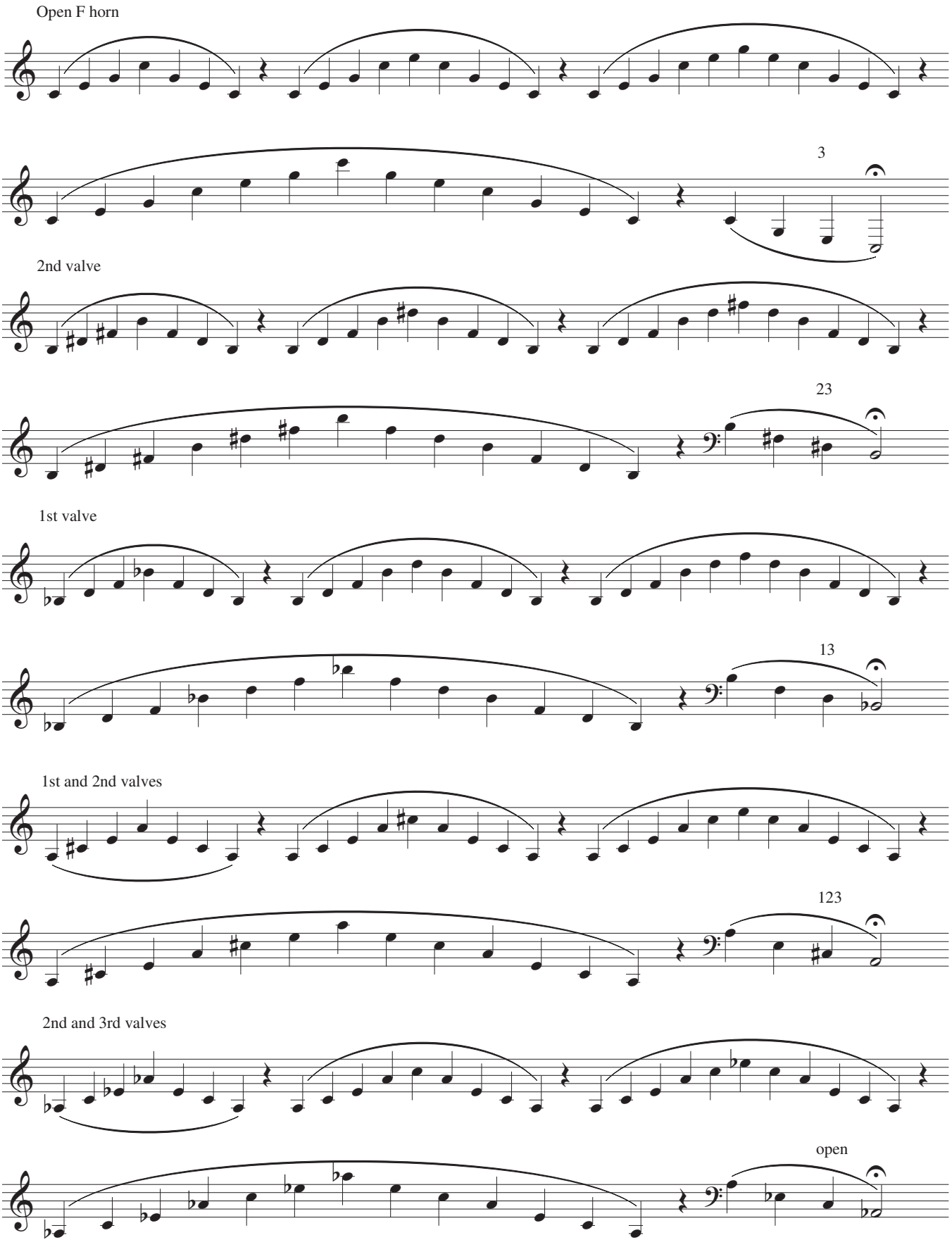
Brian Brown's
Daily Warm Up Routine

Part 1, Adapted from James Stamp's Exercises

Modified James Stamp Exercise, part 1

Modified James Stamp Exercise, part 2

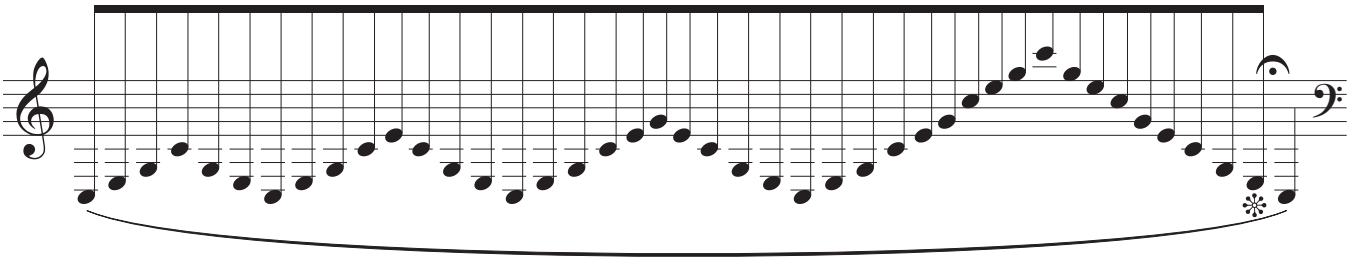
Part 2
from "The Art of French Horn Playing", by Philip Farkas



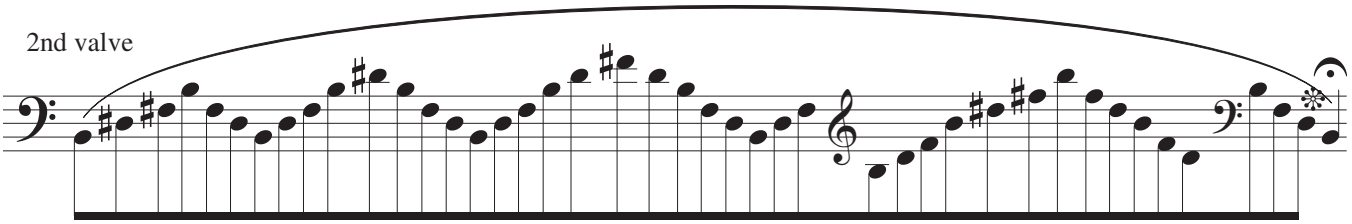
Part 3

From "The Art of French Horn Playing, by Philip Farkas

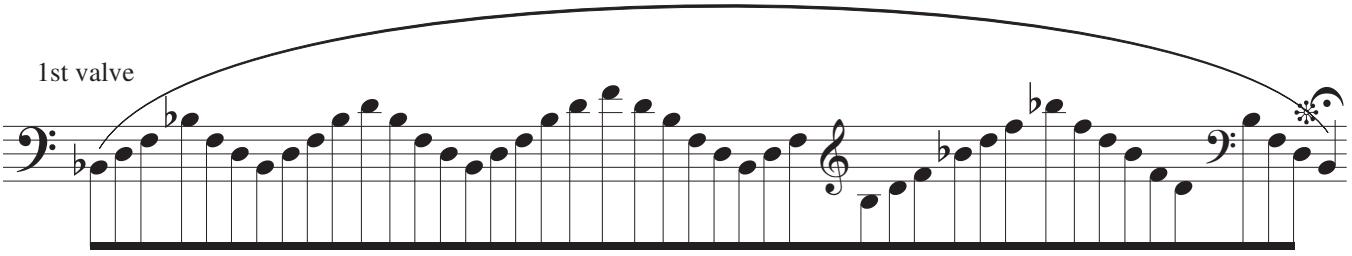
Open



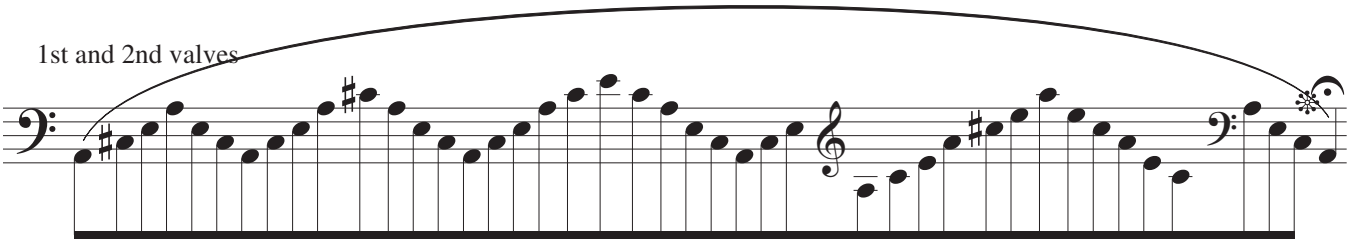
2nd valve



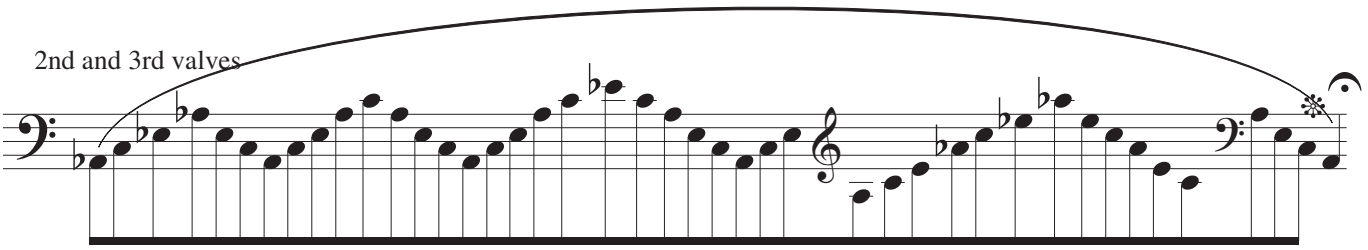
1st valve



1st and 2nd valves

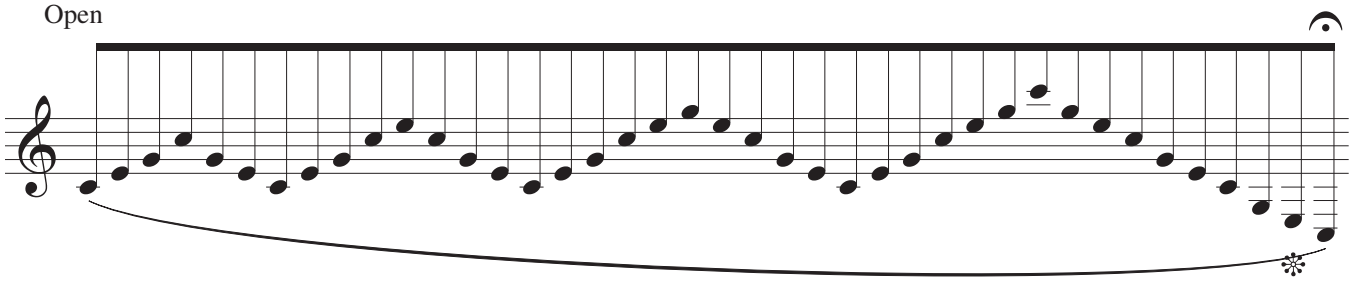


2nd and 3rd valves



Part 4
from "The Art of French Horn Playing", by Philip Farkas

Open



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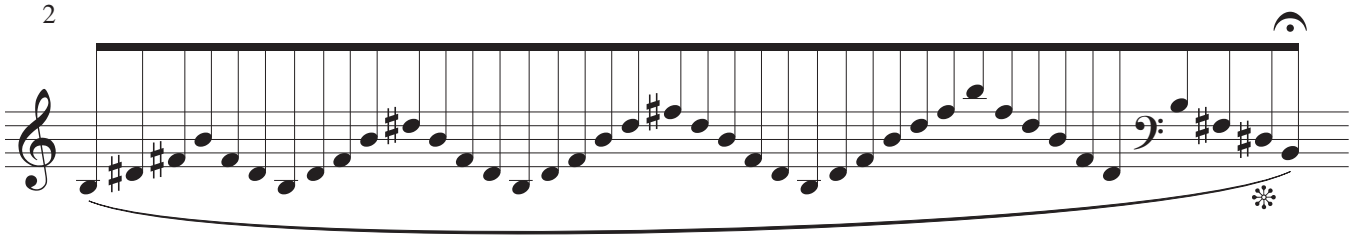

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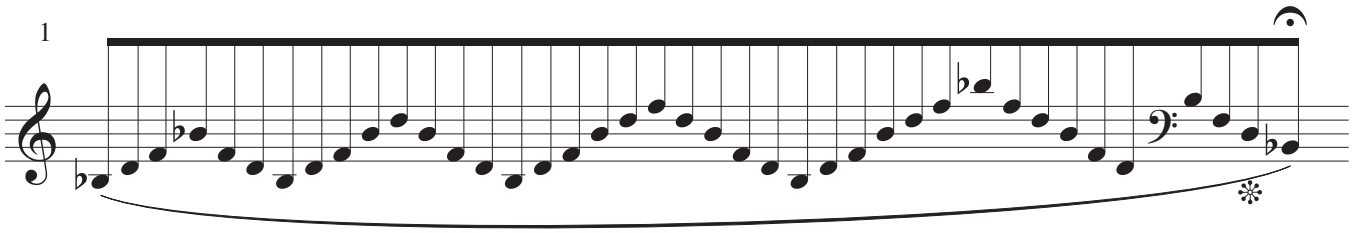

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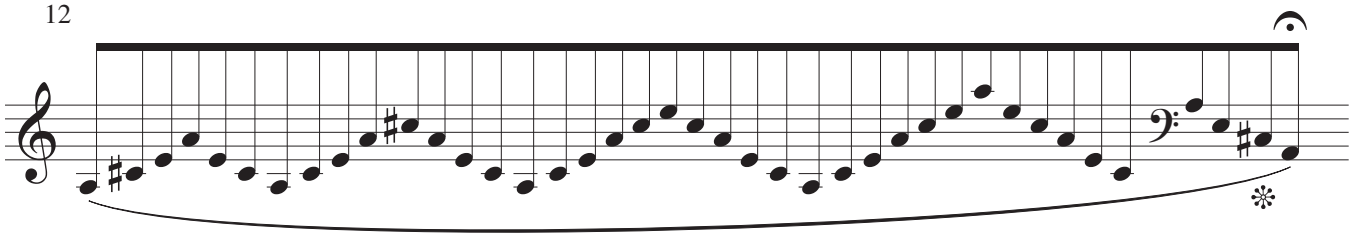

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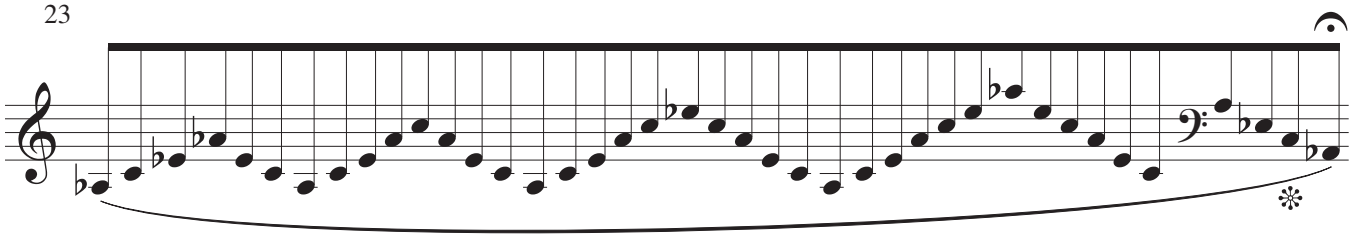
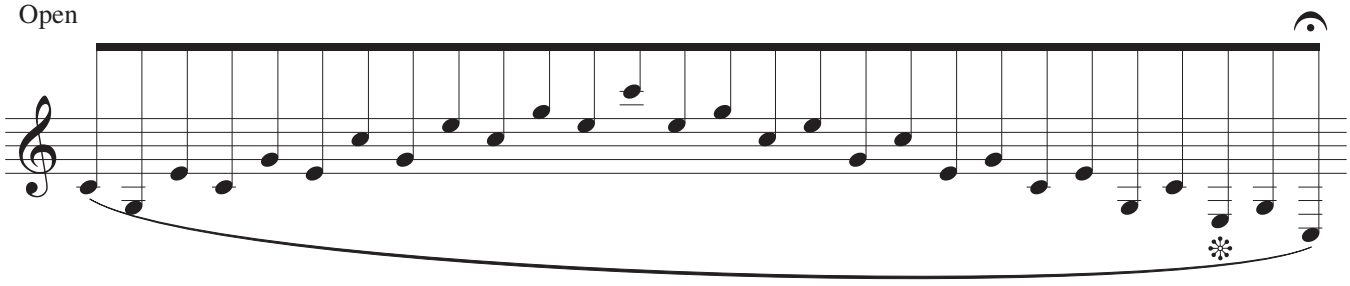


Part 5
from "The Art of French Horn Playing" by Philip Farkas

Open



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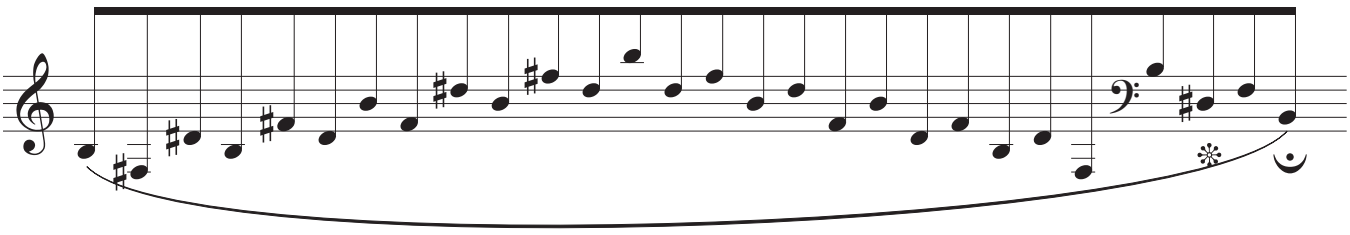

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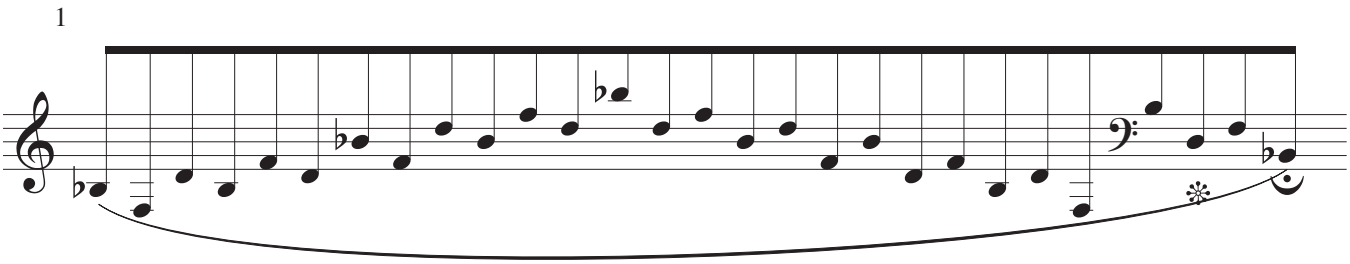

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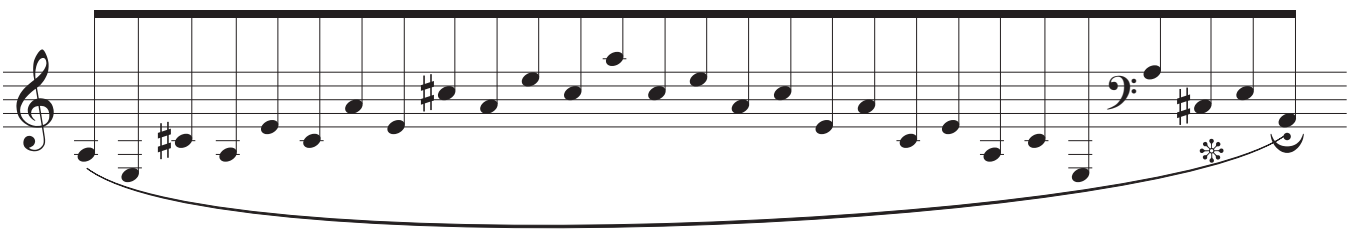

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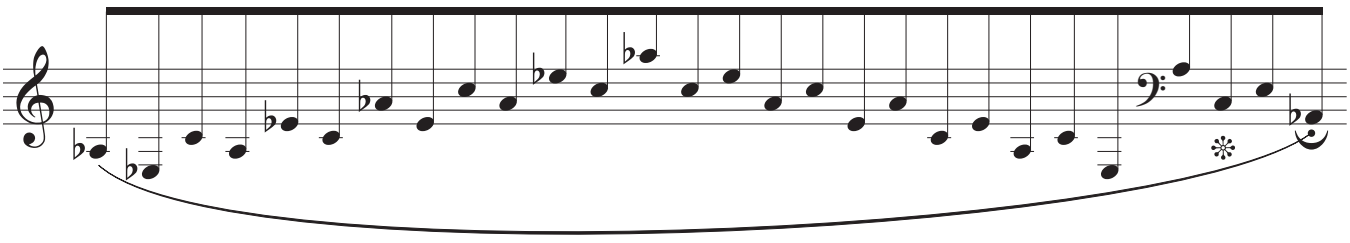
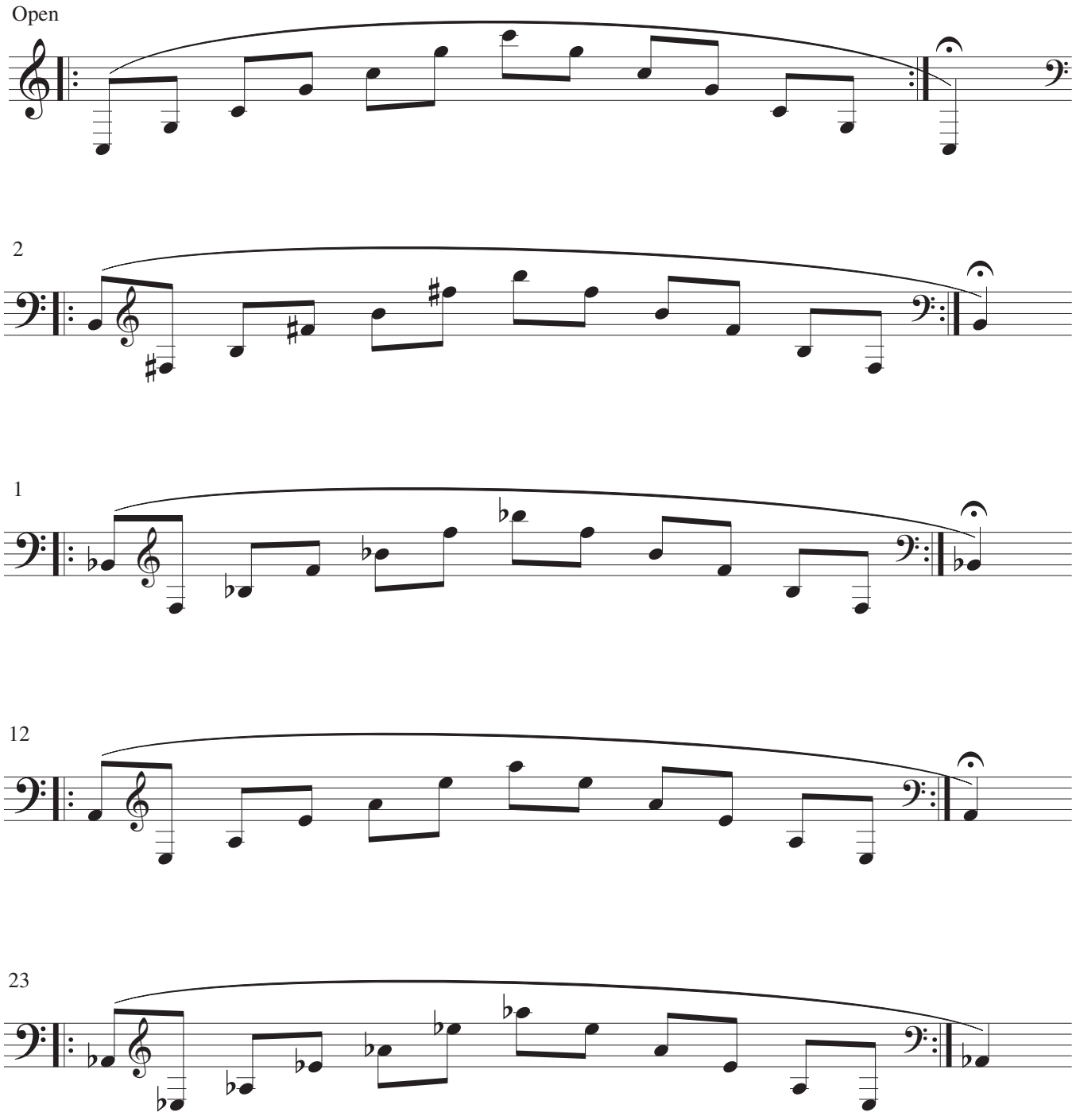
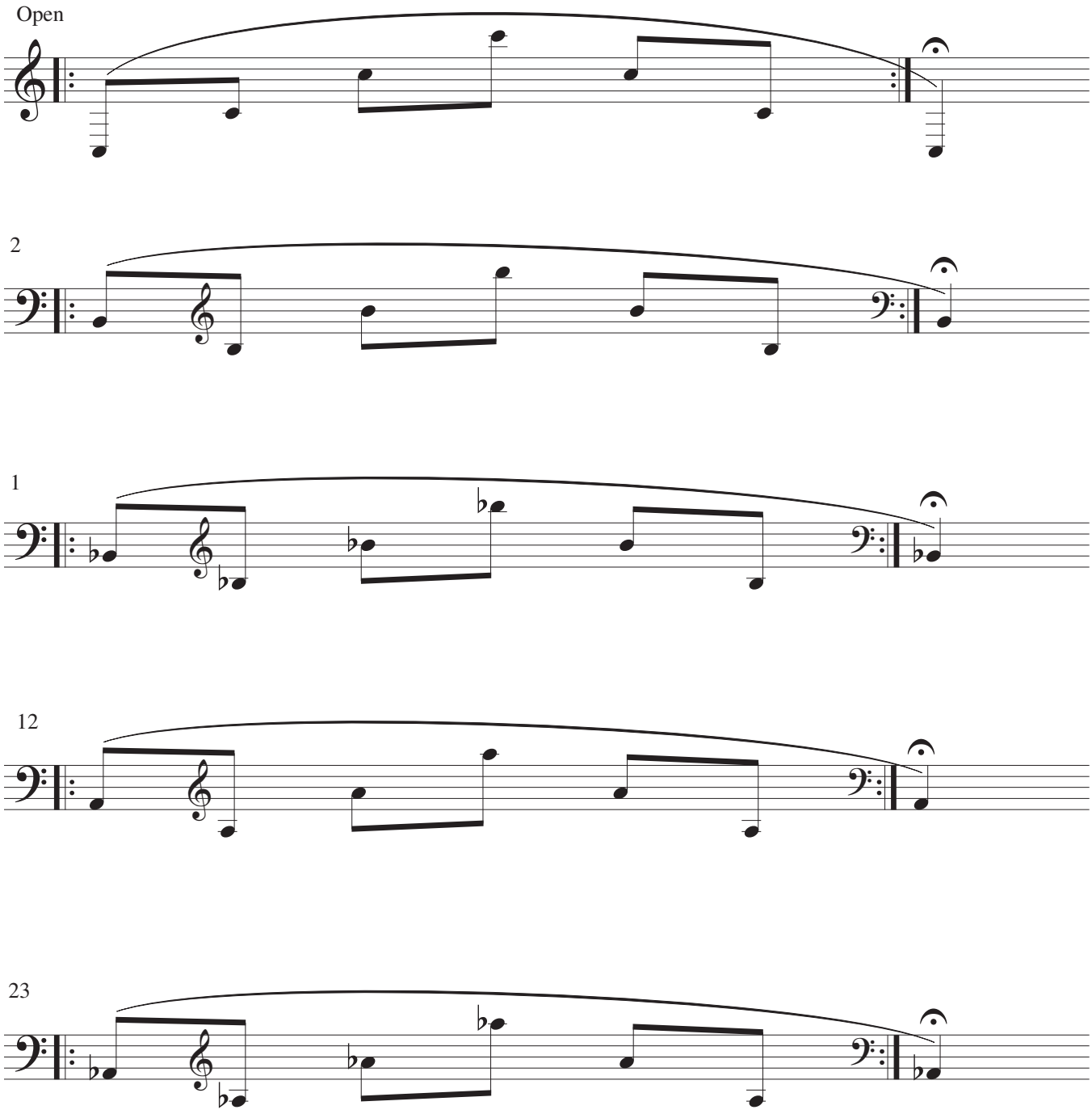


Part 6
From "The Art of French Horn Playing", by Philip Farkas



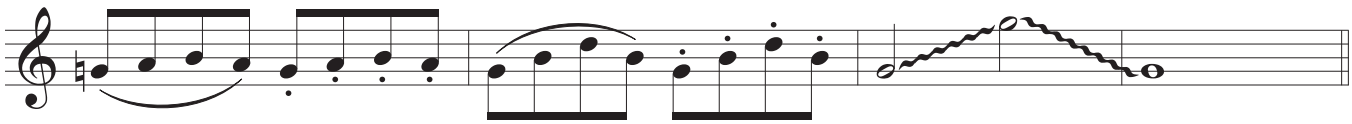
Part 7
From "The Art of French Horn Playing", by Philip Farkas



Part 8
from David Krehbiel

123

13



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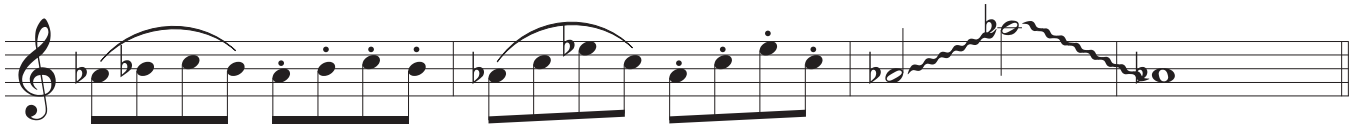


12

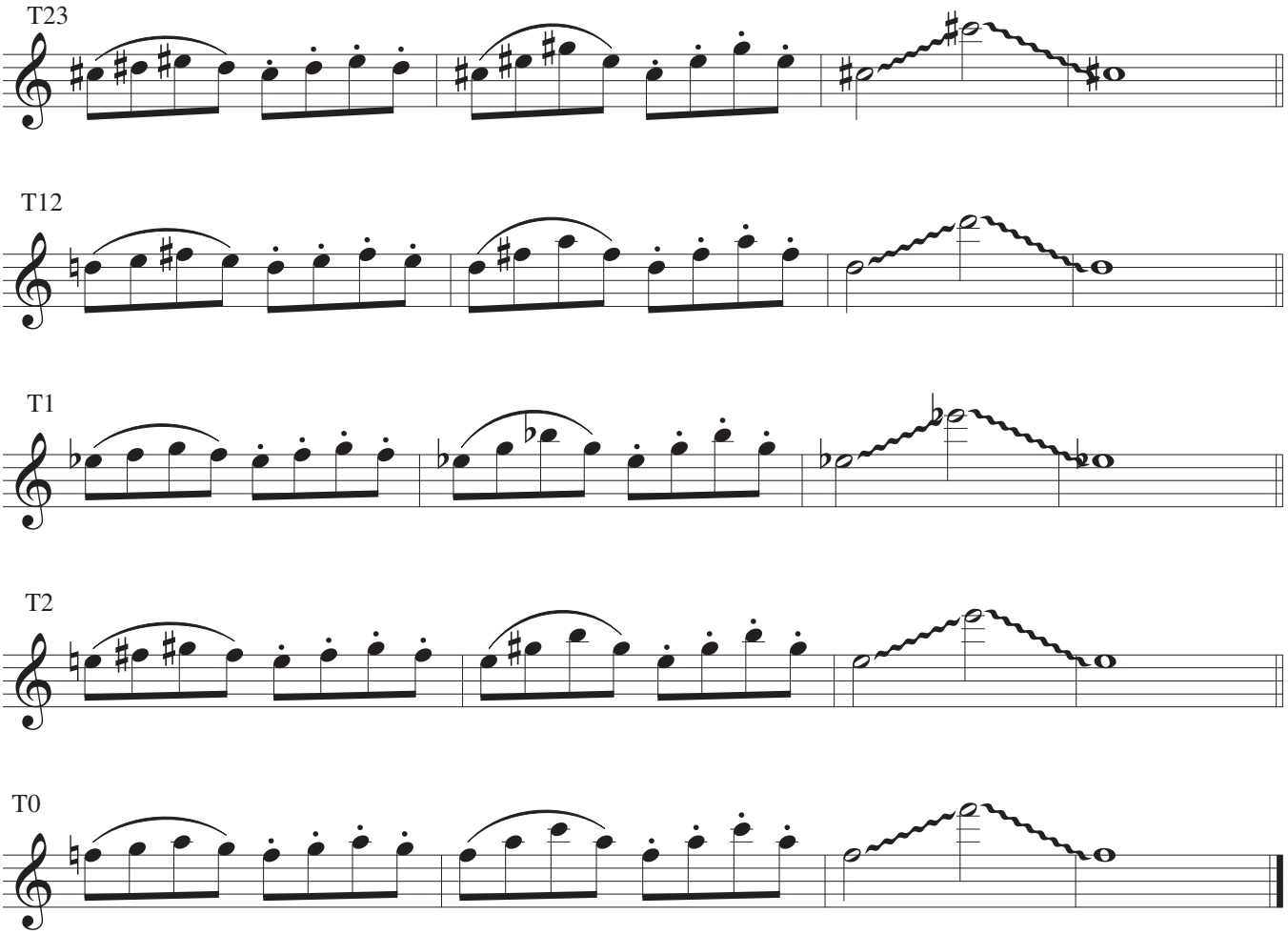
1

2

Open

Part 8
from David Krehbiel

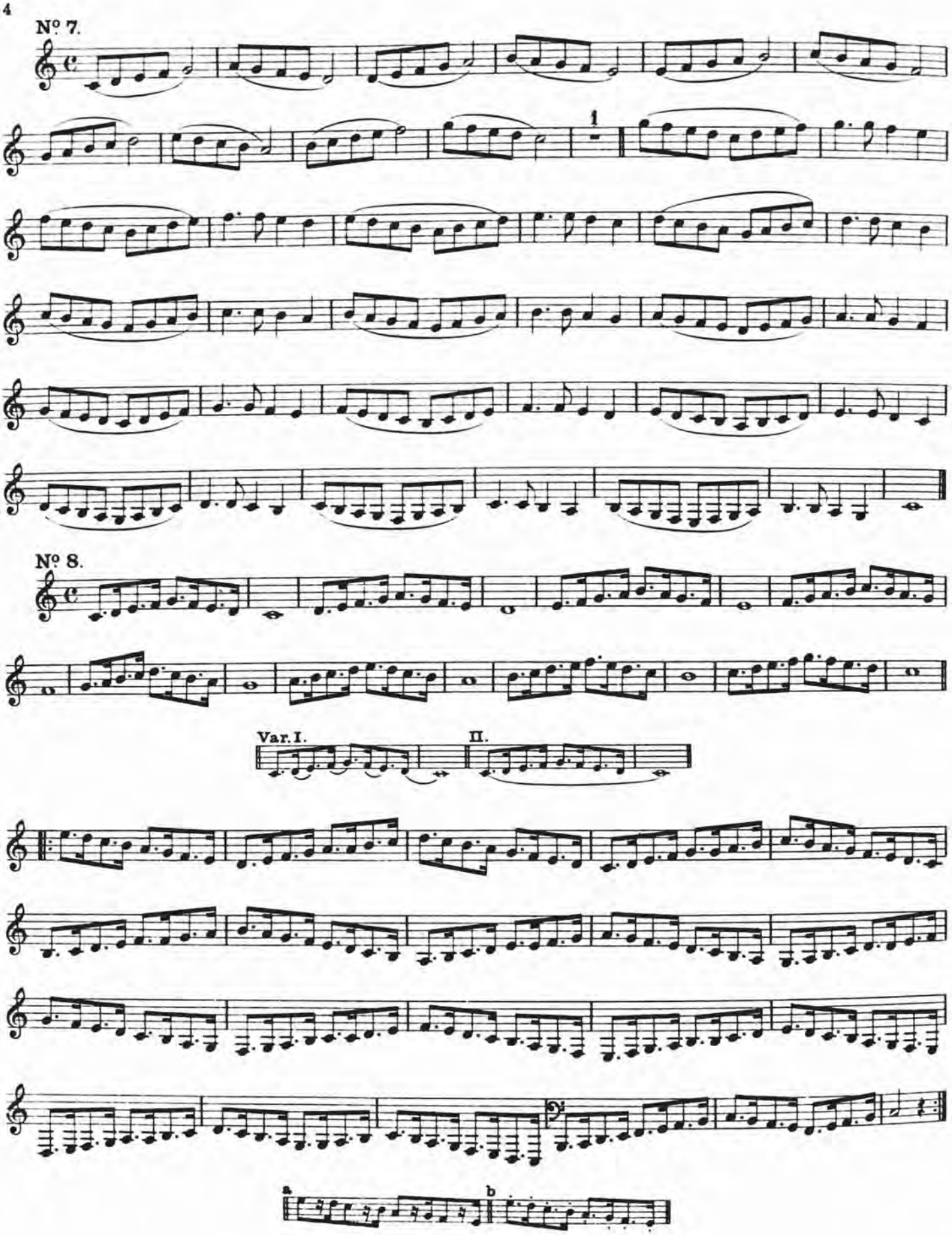
Proceed with caution!



After this, take a short break and play pedal notes.

Paul Blackstone's
Daily Warm up Routine

from: Josef Schantl - *Grand Theoretical and Practical Method for the Valve Horn*


Nº 7.
1
Nº 8.
Var. I.
II.
a
b

Nº 9.

Moderato.

D-dur Übungen. | Exercises in D-major.

Nº 1. Scala. *Scale.*

Dreiklang. *Triad.*

Dominant Septaccord. *Chord of the Dominant Seventh.*

Nº 2.

Nº 3.

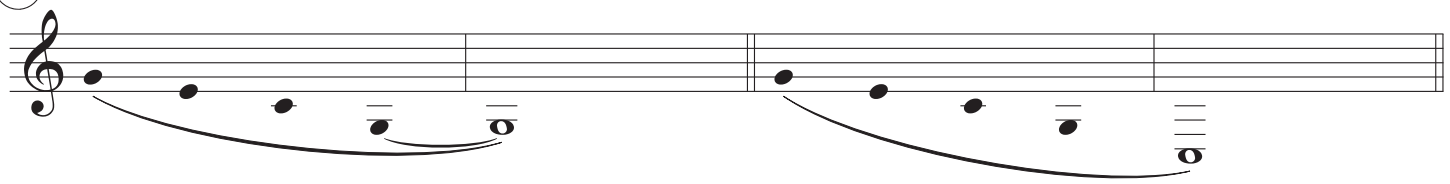
Nº 4.
Nº 5.

Audrey Good's
Daily Warm up Routine

Path Exercises

These are exercise ideas that utilize the "Path to Great Horn Playing" as taught by Bill VerMeulen. The emphasis should be placed on using AIR (vs. the chops) to change notes. Feel the pop of each of the harmonics.

1



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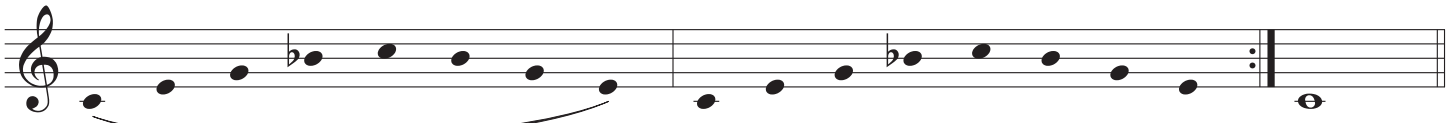
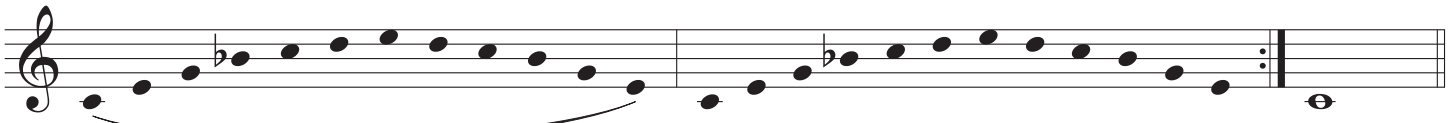
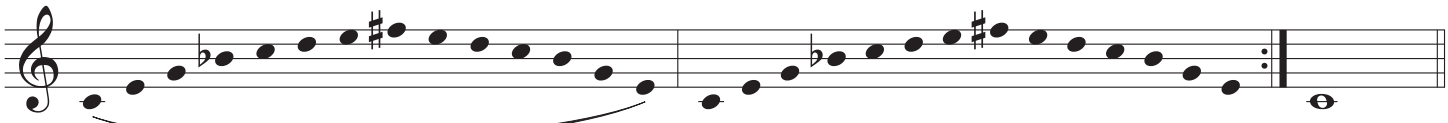


light tongue, keep the air moving

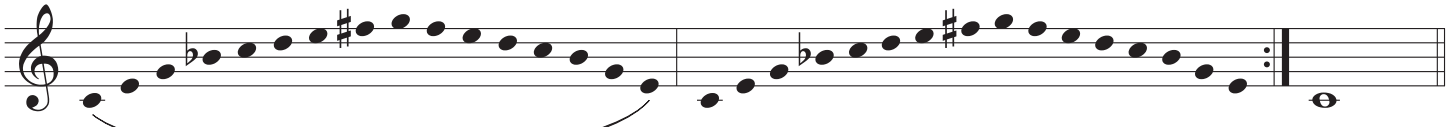
light tongue, keep the air moving



light tongue, keep the air moving



light tongue, keep the air moving

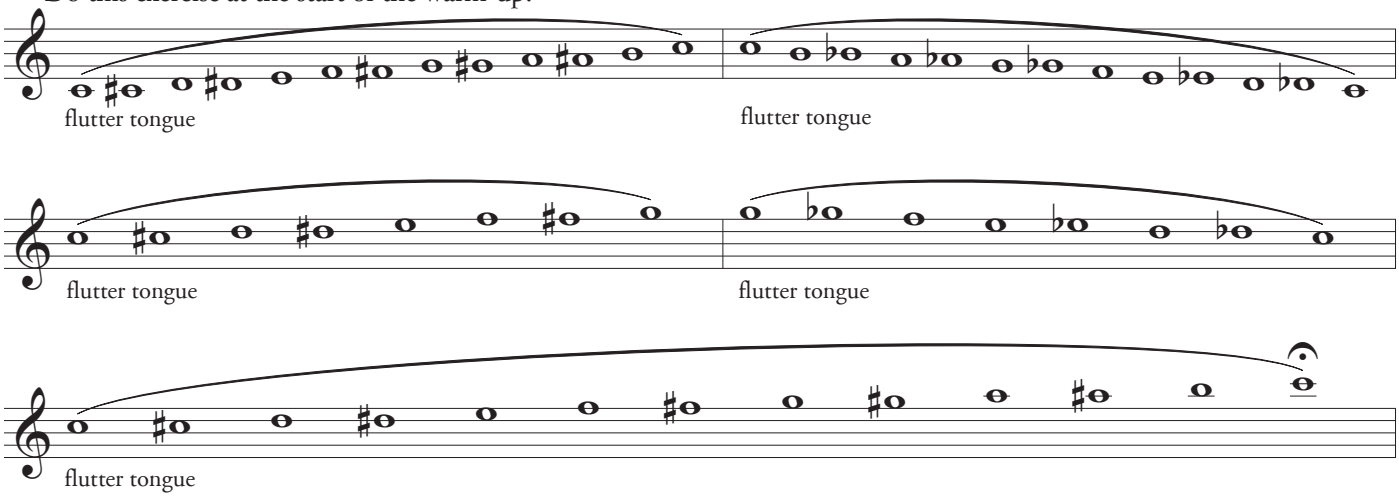


light tongue, keep the air moving

David Lesser's
Daily Warm up Routine

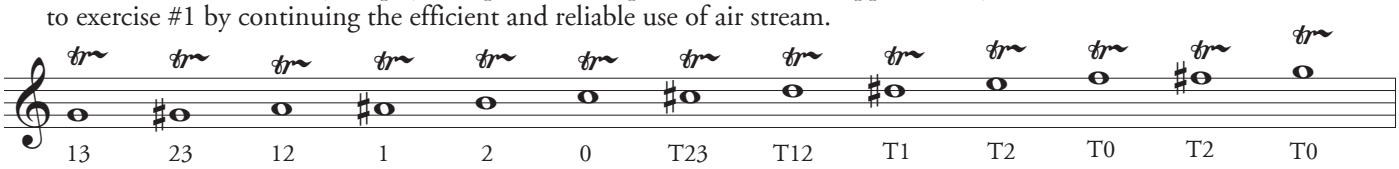
This exercise is intended to get the air moving in a manner that increases efficiency.
Do this exercise at the start of the warm-up.

1



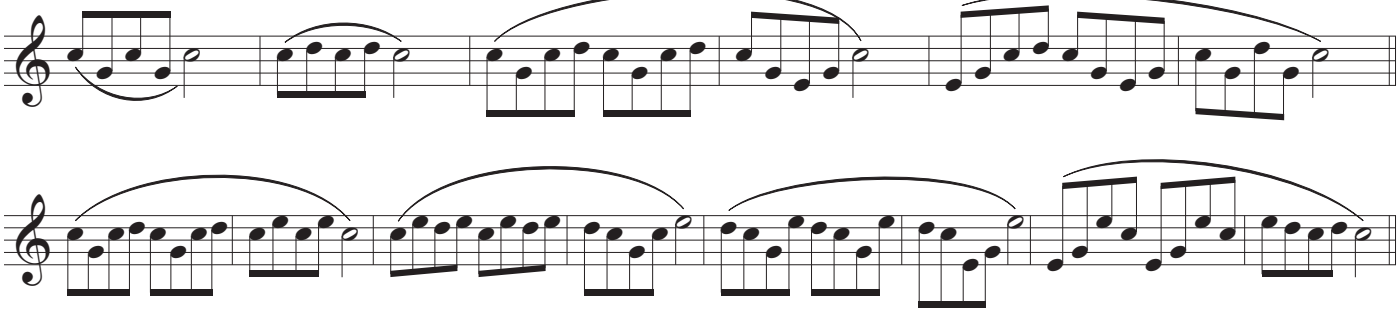
This trill exercise not only keeps your lip trills in shape, it also serves a supplementary role to exercise #1 by continuing the efficient and reliable use of air stream.

2



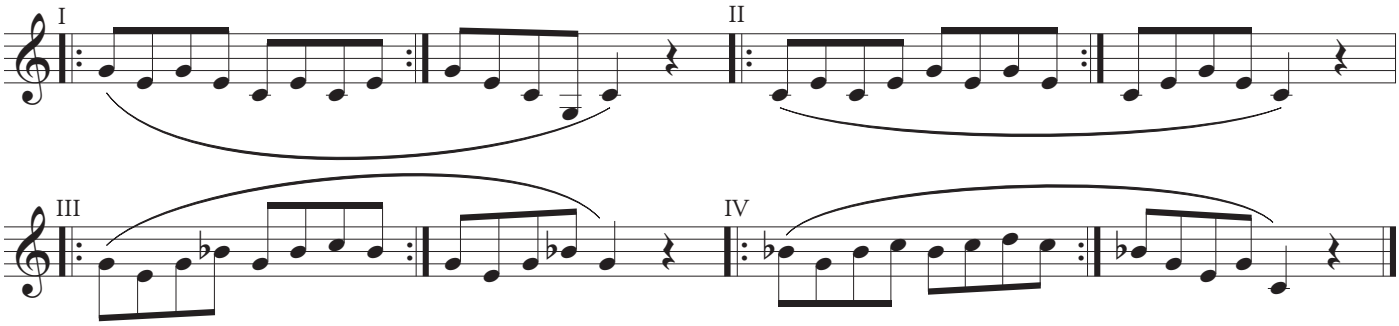
Do on all valve combinations: 0, 2, 1, 12, 23
Excerpt from: *Lip Slurs for Horn* by Howard Hilliard

3



Do on all valve combinations: 0, 2, 1, 12, 23
Excerpt from: *Progressive Studies in Flexibility & Range* by Fred Teuber

4



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excerpt from

Lip Slurs for Horn

A Progressive Method of Flexibility Exercises

Howard Hilliard

18
23
12
12
1
1
2
2
0
0
T23
T23
T12
T12
T1
T1
T2
T2
T0

Gerald "Gerry" Wood
Daily Warm up Routine

Training for Greatness

What?! Training?! I Thought this was Music!

Playing the horn is not much different than training for almost any physical activity or sport. There are certain skills we need in order to be successful. There are some skills we are born with, and others we have to work very hard to attain. The people that succeed in any given activity are those that have taken the time to develop new skills in addition to strengthening and maintaining the skills they have already.

If a person were looking to get into shape physically (and they had the money), they would probably join a gym and get a personal trainer. He or she would help them to devise a plan tailored to their specific needs, strengths and skill set. Even if a person didn't have the money and only worked out regularly using ideas they got from Pintrest, the philosophy is the same: Decide what needs to be better, devise a plan to fix it, then fix it.

French horn is a physical activity. Developing and maintaining skills on the Horn is no different than training for a sport. As a young player the emphasis is on developing and strengthening new skills. As an older and more advanced player the emphasis leans more towards maintenance. Regardless, a regular, daily workout is the key.

We are slaves to the music

Each piece of music demands some level of skill in order to be played properly. Some pieces require extreme range or volume. Others require trills, stopped horn, long sustained notes, transposition or any number of special techniques. It is our duty as horn players to be able to do whatever is required in order to successfully perform a piece the way it was intended by the composer. We are slaves to the music.

Many times players use a certain piece of music to develop the specific skills needed to play it, rather than developing the skills needed, prior to applying them to music. Both methods work, however, the basis of developing a workout plan is to "head off" the skills at the pass. If, in our daily workout, we are working on developing the skills that we are lacking, we open ourselves up to much broader possibilities in music.

What Skills do I need?

Every player is different. Everyone has their own weaknesses and strengths. An honest assessment of your specific skill set is imperative to tailoring your workout. I suggest a questionnaire similar to the following:

I believe my greatest strengths on the Horn are:

1) _____

2) _____

3) _____

4) _____

My biggest weaknesses on the Horn are:

1) _____

My solution(s) is/are: _____

_____

2) _____

My solution(s) is/are: _____

_____

3) _____

My solution(s) is/are: _____

_____

4) _____

My solution(s) is/are: _____

_____

5) _____

My solution(s) is/are: _____

_____

What skills additional skills do I want to develop:

1) _____

2) _____

3) _____

What do I want to accomplish this year:

1) _____

2) _____

3) _____

Creating a plan of action

Once you have an idea of what your weaknesses and strengths are, you can develop a plan. I have included numerous exercises that can be used at different points throughout your workout to develop and maintain your skills. I believe breaking the workout into phases. Each phase contains a choice of exercises that will focus one or more specific skills.

Phase 1
(Pre Warmup)

1. Breathing
2. Buzzing
3. Hilliard Lips Slurs (p. 42)
4. Downward Bends

Phase 2
(Big Muscles)

1. Farkas (p. 60)
2. Dave Johnson (p. 40)
3. Sachs (p. 34)
4. Path (p. 75)
5. 1/2/1 Scales (p. 24)

Phase 3
(Small Muscles)

1. Wobbles (p. 33)
2. Clarke #1 (p. 43)
3. Trills (p. 25)
4. _____

Phase 4
(Weaknesses)

1. Neuling Etudes (p. 52)
2. Rochute Etudes (p. 50)
3. Big Path
4. Drone (Intonation) (p. 59)

Phase 5
(Patterns)

1. Hilliard Lips Slurs (p. 42)
2. Belck Lip Slurs (p. 54)
3. Clarke #2 (p. 46)
4. Interval Studies (p. 38)

Phase 6
(Music)

1. _____
2. _____
3. _____
4. _____

My Workout Plan

Phase 1

1. _____
2. _____
3. _____
4. _____

Phase 2

1. _____
2. _____
3. _____
4. _____

Phase 3

1. _____
2. _____
3. _____
4. _____

Phase 4

1. _____
2. _____
3. _____
4. _____

Phase 5

1. _____
2. _____
3. _____
4. _____

Phase 6

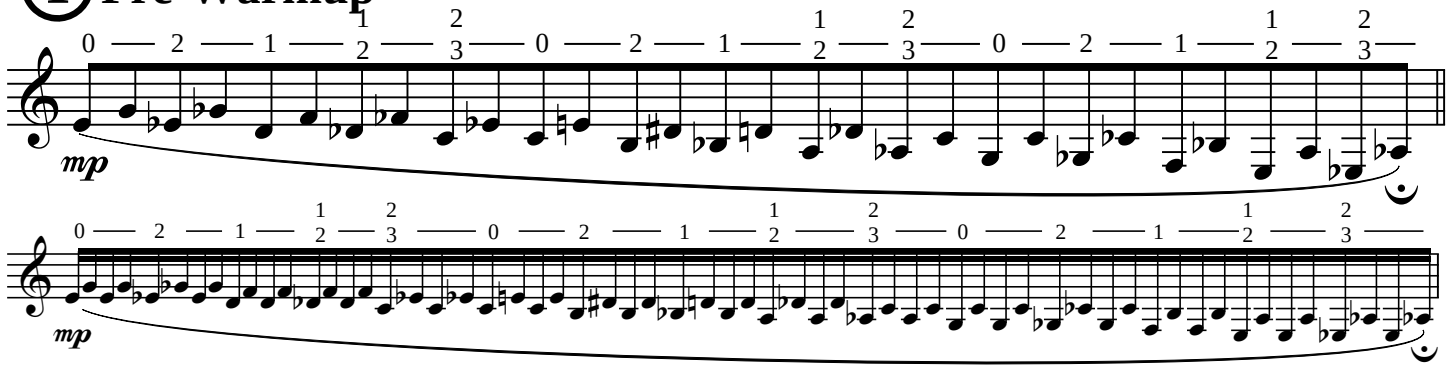
1. _____
2. _____
3. _____
4. _____

Molly Wood's
Daily Warm up Routine

3
0
T23
T12
T1
T2
T0
4
T0
T23
T12
T1
T2
T0
5

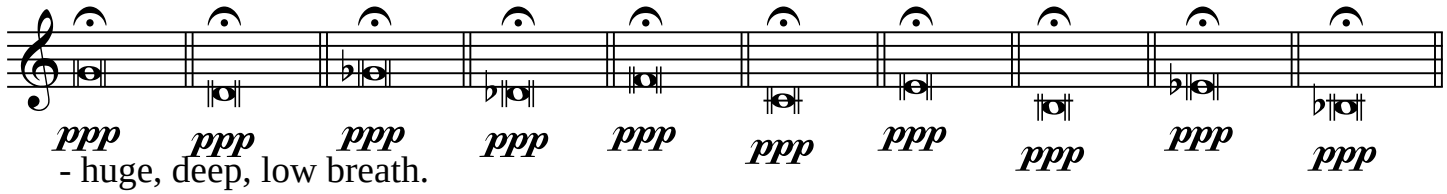
Hermann Baumann Warm-up

① Pre-Warmup



- 4x per interval; 5x; etc., as many as possible on one breath

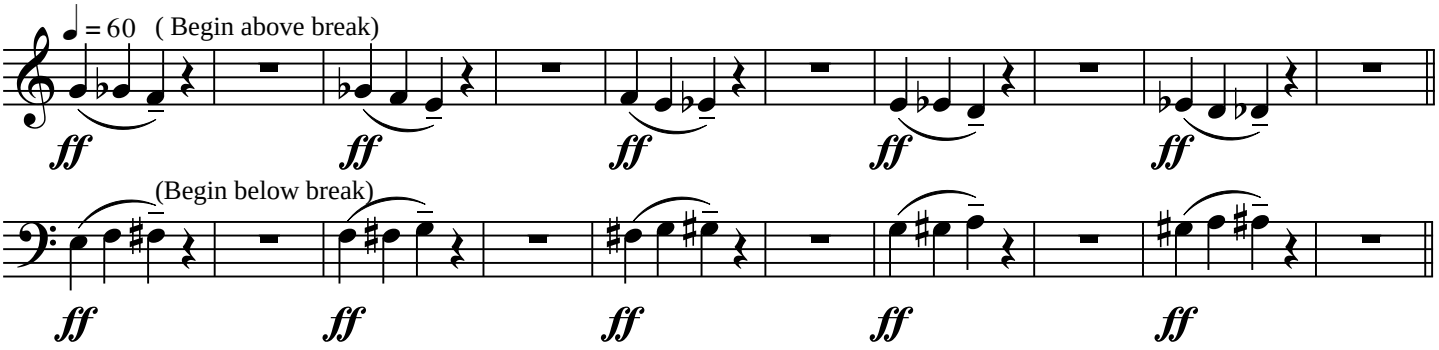
② Middle Register Long-Long Tones



- huge, deep, low breath.
- soft attack
- steady pitch; even, clear, soft tone.
- each note as long as possible - time them, aiming for at least 45-60 seconds

③ Altissimo Register Exercise

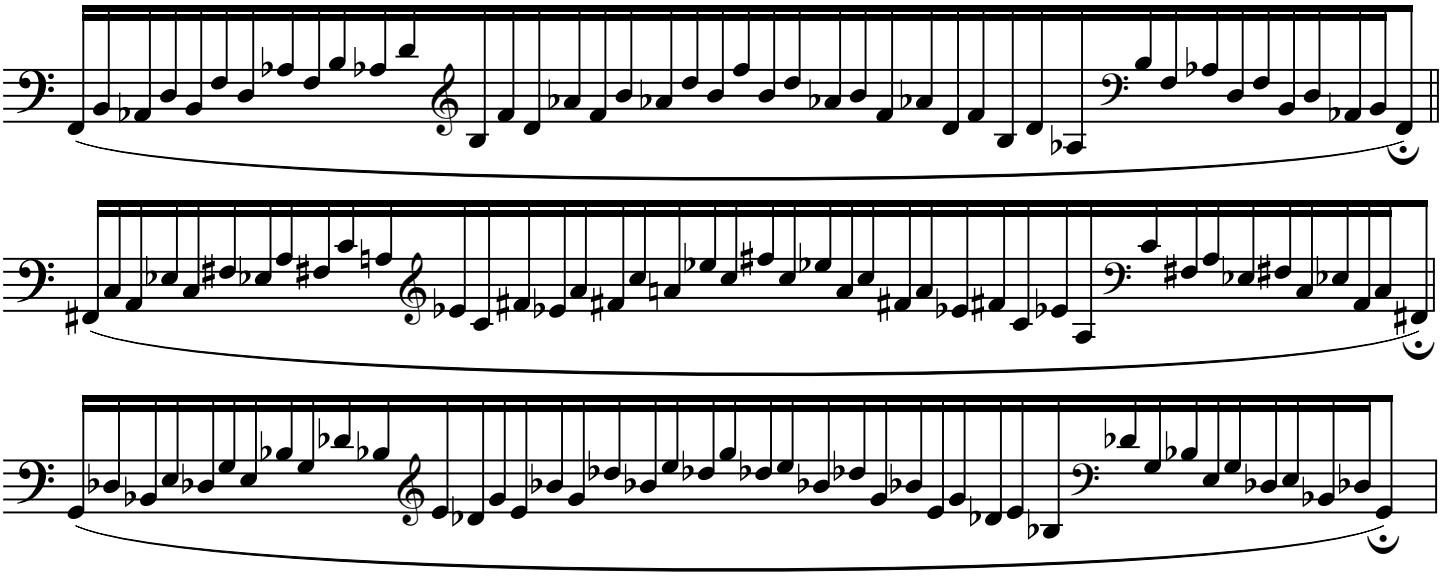
④ Break Camouflage Exercise



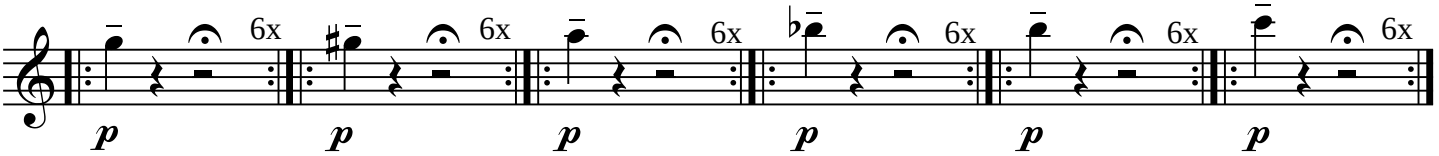
- keep ascending/descending until tone suffers significantly

⑤ Diminished Seventh Flexibility Exercise

Play as fast, smoothly and evenly as possible. Aim for ♩ = c.120

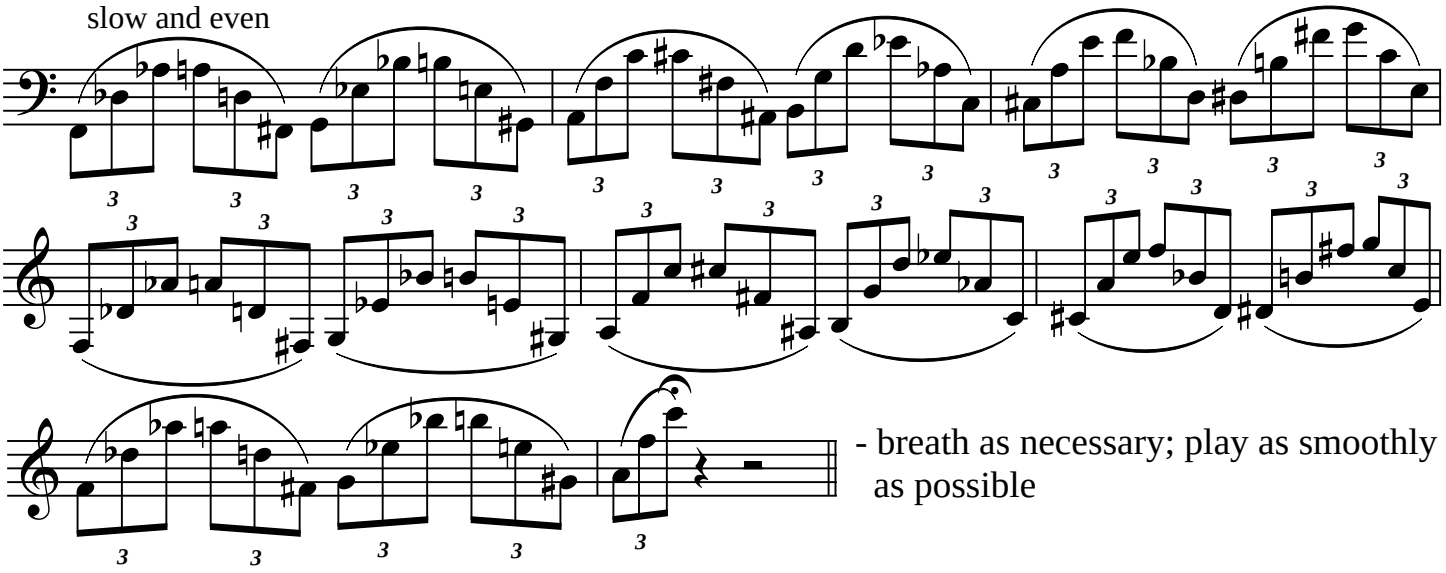


⑥ High Register Accuracy Exercise - The 100,000 Perfect Notes



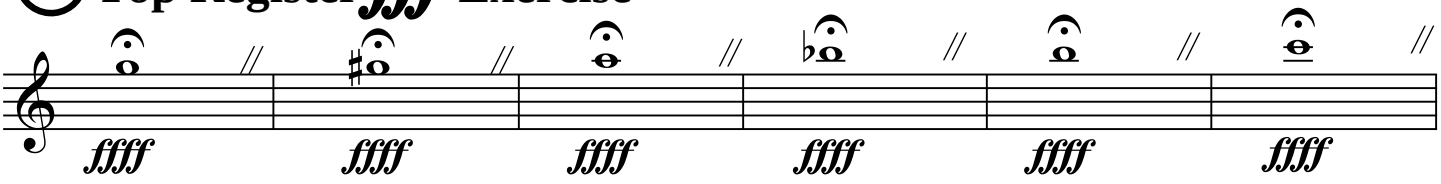
- each attack must be absolutly flawless, perfect and beautiful.
- each pitch must be repeated 6 times consecutivly, perfectly . If one is not up to your highest standards, begin again at "1" for that note
- A need for variety may be met by increasing the number of repetitions, or quasi-randomly changing dynamics, attacks (breath - marcatissimo, stopped/open, fingerings.
- repeat for c. 10 years.

⑦ Flexibility Exercise



- breath as necessary; play as smoothly as possible

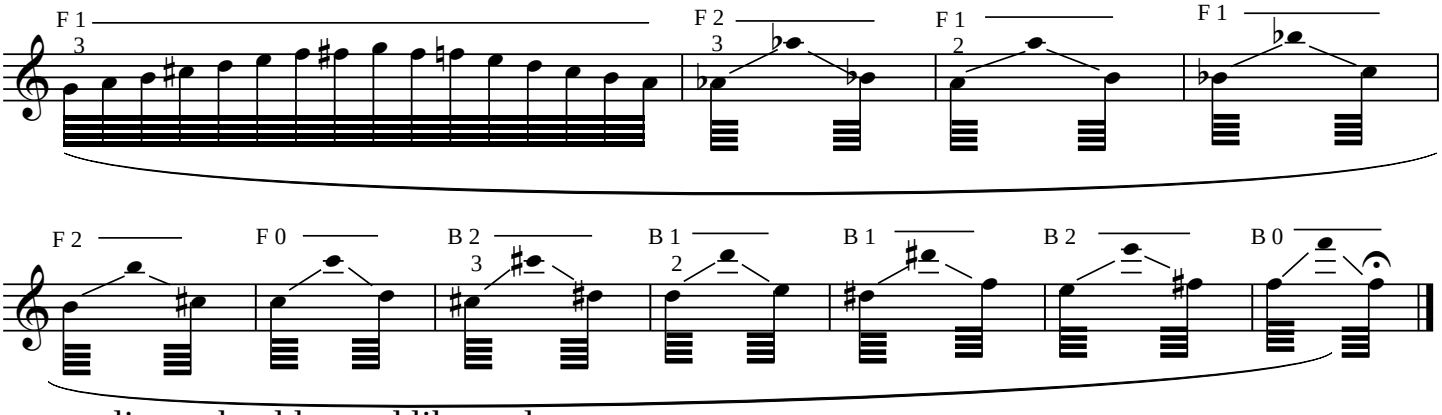
⑧ Top Register *fff* Exercise



- do NOT play this exercise when very tired.
- use AIR to produce extreme dynamics.
- after playing this exercise, NO PLAYING FOR 1/2 DAY.

⑨ Embouchure and Register Extention Exercise

Play as quietly and evenly as possible



- glisses should sound like scales.
- keep dynamic, air flow, mouthpiece pressure consistant
- strive for "woodwind-like" lightness.

Carmine Caruso Method

Adapted by Julie Landsman

This is a method that helps prepare your body to play music.

1. TAP YOUR FOOT. Tapping your foot helps the body to feel the rhythm needed to coordinate over two hundred muscles. More than just thinking about the timing, foot tapping connects the feel of the time to the body (kinesthetically). Feel the downbeats and upbeats.

2. Keep the mouthpiece on your lips throughout the entire exercise. This reduces the chances of resetting the embouchure in a different place on your mouth, and makes it easier to develop good chops.

3. Keep the blow steady and constant. Always move the air through the instrument when playing anything! If the air stream is steady and well supported, then it is easier to develop a good embouchure. Here is an analogy: think of the lips as skis on the water. As long as the boat is moving, the skis stay on the water. When the boat slows down, the skis dig in, and when the boat stops, you fall off. This is what happens to the lips when the air is not being steadily pushed through them. An air stream that is constantly feeding the lips will develop a better balance of muscles.

4. Breathe through the nose. This rule goes along with #2. Try to maintain the same setting of the embouchure while breathing. This reduces the number of variables involved in playing the horn, and helps develop a healthy embouchure more quickly. If you experience stuffed sinuses, breathe through the corners of the mouth, and try not to disturb the setting.

5. Ready – Set – Play! Whether practicing Caruso exercises or any music at all, it is essential before starting to set up one measure of subdivided time. Whether action is starting a note, moving to another note, or ending a note, the subdivision is equally important. (i.e.)

   The importance of being ready and set to play through precision subdivision and timing cannot be over-emphasized! Whether practicing Caruso exercises, orchestral excerpts, playing in orchestra, or chamber group, it is essential to be ready to play well before the first note comes out. Therefore, always, follow the rule of giving your body at least one measure of subdivided time before your first entrance. Having your body ready before the note comes out gives you a huge advantage!

6. Unless otherwise indicated, all exercises are to be executed at a healthy mezzo forte; no louder.

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I. THE SIX NOTES

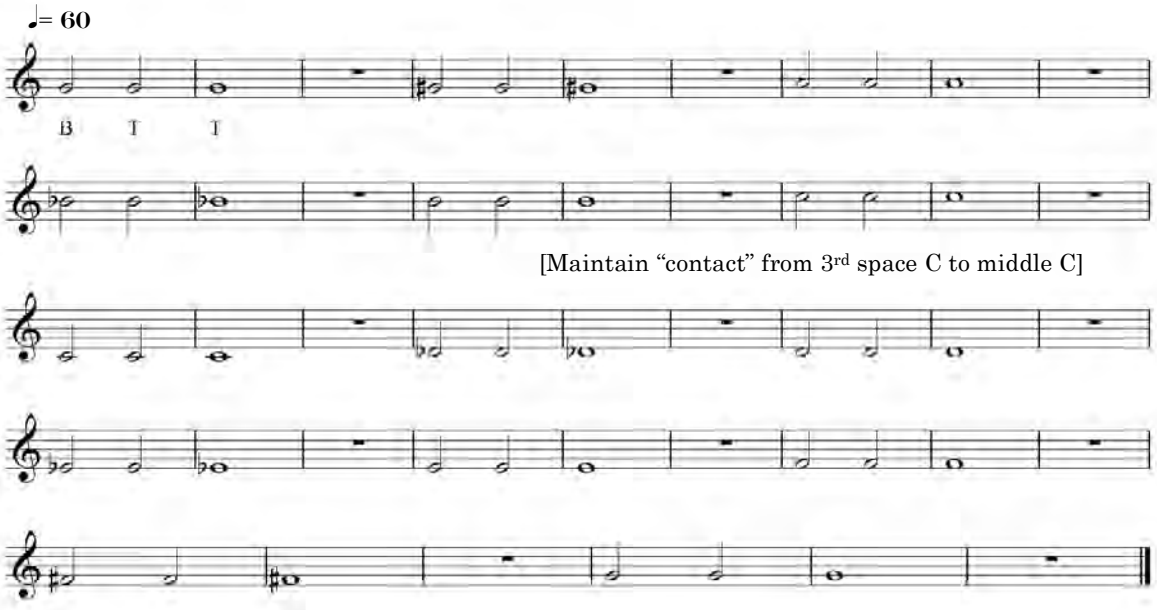
Even though there are more than six!

Play exercises with one steady air stream. Start with whichever version is easiest.
Be Ready – Set – Play!
[B] = Breath attack*
[T] = Tongue attack

* Breath Attacks provide the easiest way to get the lips in focus without "jumpstarting" the note with the tongue. Feel free to use tongue on the first note, if at first, the breath attack is a struggle.

SIX NOTES – Version #1

Version #2



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II. LIPS/MOUTHPIECE/HORN

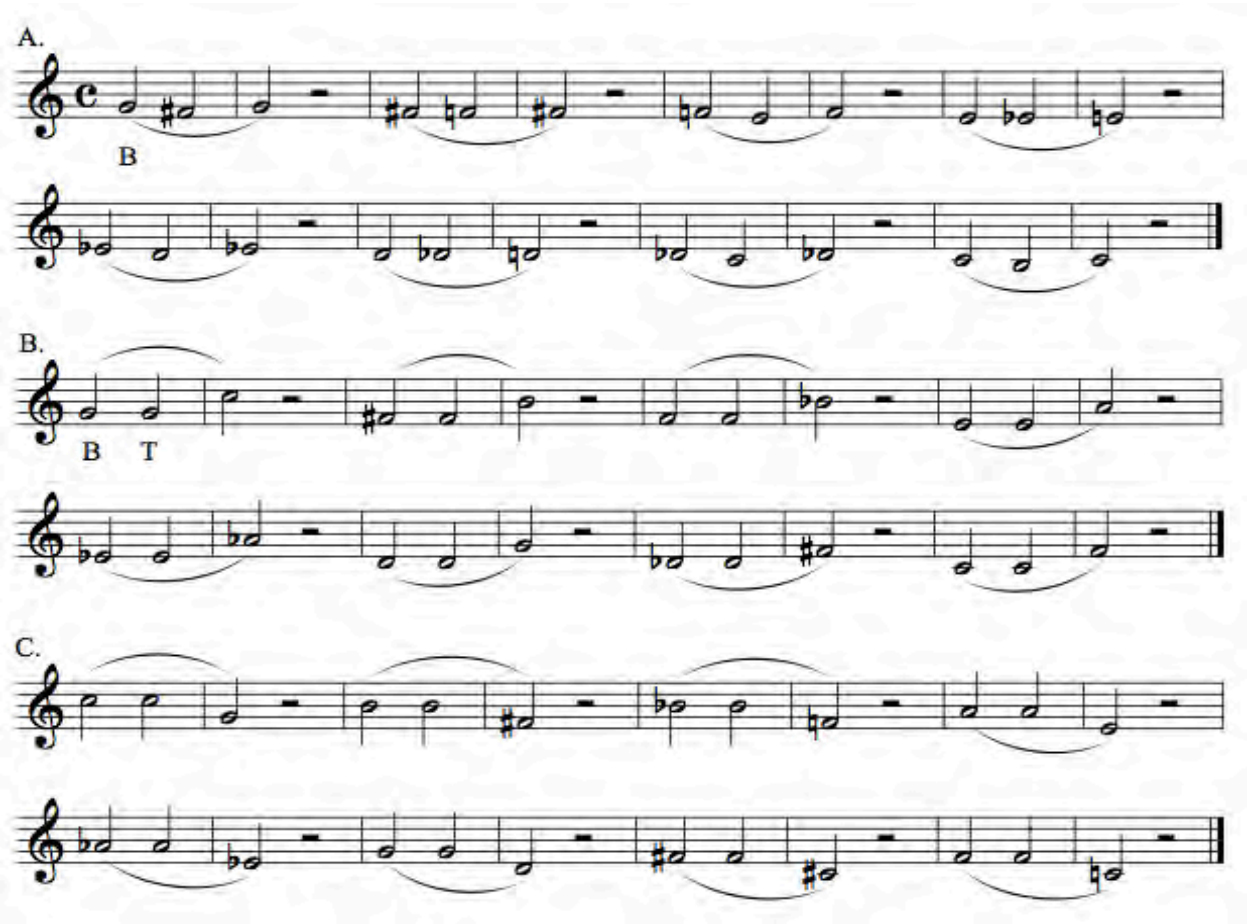
Do this exercise in this suggested sequence, however, make it struggle-free and with as much ease as possible.

1) Buzz all pitches only with the lips.
2) Buzz all pitches on the mouthpiece.
3) Play all notes on the horn with valves. Version A: finger the first note, bend the pitch to the second note. Versions B and C: finger both notes.

The three buzzes (steps 1-3) do not need to be exactly the same. The goal is to keep the blow steady, and maintain the buzz throughout the entire exercise. Attempting to manipulate the embouchure in any way will inhibit the progress of this exercise. Just produce the sound in the easiest way possible, without trying to place the chops in a certain way. Do not force the lips into place, even if all three events are slightly different from each other.

If comfortable, continue exercises lower.

♩= 60



You may choose the easiest note to start. These exercises are suggested starting places. Do only as many that work with ease. In due time, expand outwards from your starting note. Do not free buzz higher than a third space C, and descend as low as is comfortable.

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IV. OPEN HARMONIC SERIES

1) Choose the beginning that works with ease.
2) Ride the steady airstream.
3) Be strict with your subdivision, especially when establishing your upbeats.
4) Practice whistling! Notice how your lips and tongue move forward in your mouth when you ascend.

Beginning 1

Beginning 2

Beginning 3

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V. LOW REGISTER

1) As you descend, maintain even and equal pressure on both lips.
2) Do not let go of your lip contact and mouthpiece pressure as you descend!
3) Maintain mouthpiece contact in the rests and breathe through the nose. Take beats 3 & 4 to inhale and prepare for the downbeat.
4) Follow these low register exercises with the chromatic scale. (See INTERVAL STUDIES, p.5)

These exercises may be used as a warm-down. Use of a tuner may help determine the proper mouthpiece contact and pressure. Often players will let go of contact with the lower lip [sometimes upper], however better results may be achieved with this technique of keeping good contact with lips [and teeth!] with the mouthpiece, *especially* when dropping the jaw.

Chromatics Down

[LT] = Legato tongue (keep it connected)

etc. go as low as you can

Arpeggios Down

etc. go as low as you can

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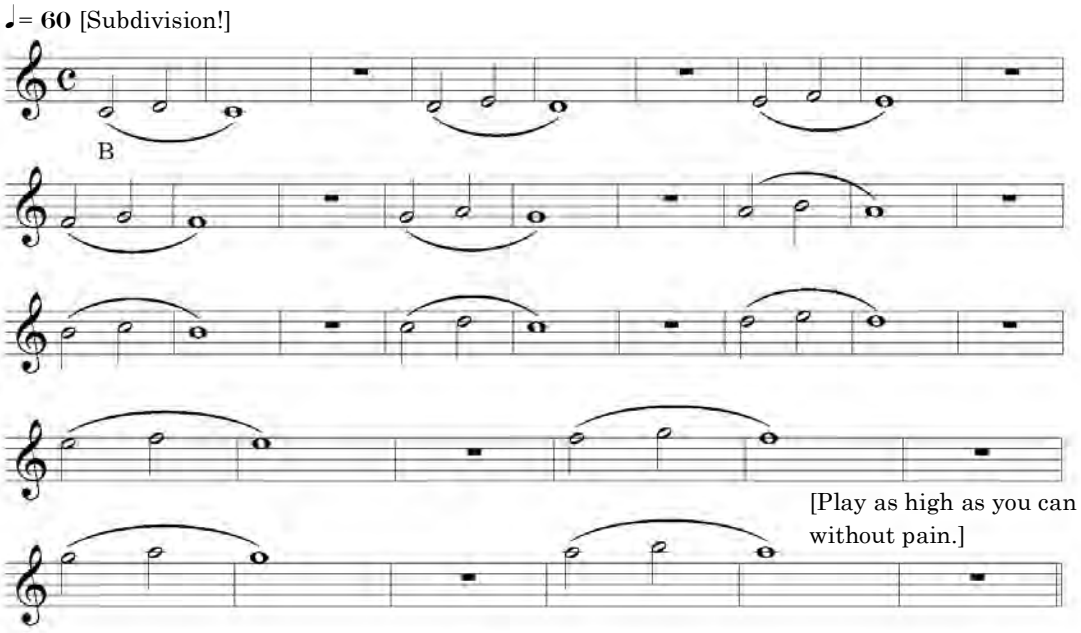
III. INTERVAL STUDIES

1) Warm up your upper register before playing this exercise. This can be done either in your normal way, or by playing some slow, slurred scales into your comfortable upper register.
2) Starting note can vary. (For example – middle G, low G, or low C.)
3) Complete each interval set before stopping. If you need a place to rest, complete the current interval and then rest for 10 seconds. After this time, pick up where you left off, using precision timing to restart.
4) Go as high as you can keeping the same mouthpiece set, but do not force this exercise.
5) Do not play with pain.
6) Increase interval size every week. (For example – 3rds, 4ths, 5ths, up to 10ths).



Immediately after finishing the intervals, play the pedal F# three times softly for as long as possible. This is an essential part of relaxing the chops after the intervals, or after any other strenuous playing.

Play chromatics smoothly with ease. Never force any of these exercises, therefore choose start and end notes wisely. Regardless of whether the notes speak, go for the action of the notes without force.

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VI. FLEXIBILITY

Noodles

These exercises increase flexibility and help to "iron out" inconsistencies in embouchure set and sound quality throughout the registers. Play as slowly as necessary to maintain mouthpiece contact and tone integrity. The exercises below show suggested starting pitches; feel free to start on any note, in order to work out break registers. Breathe through the nose. Play slowly, then twice as fast. Always keep a double- or half-time relationship between tempos.

Noodles Down

Noodles Variation 1

Pop-out Noodle

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Other suggested starting pitches:

G:

E:

C:

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FLEXIBILITY

Spider and Snake

Spider – If a breath is needed, add a few beats and breathe through the nose, taking care to leave the embouchure undisturbed. Subdivide, feeling upbeats.

First, start slowly:

Then once more, double-time:

Snake – Add the snake when the spider can be executed smoothly in both variations. When both the spider and snake can be executed smoothly in faster speeds, change the starting note.

Variations for Spider and Snake
1) All Tongued attacks
2) Start on different notes.
*****When using the tongue, be sure to use the same air flow as when playing slurred.*****

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Spider from E:

Spider from G:

Snake from E:

Snake from G:

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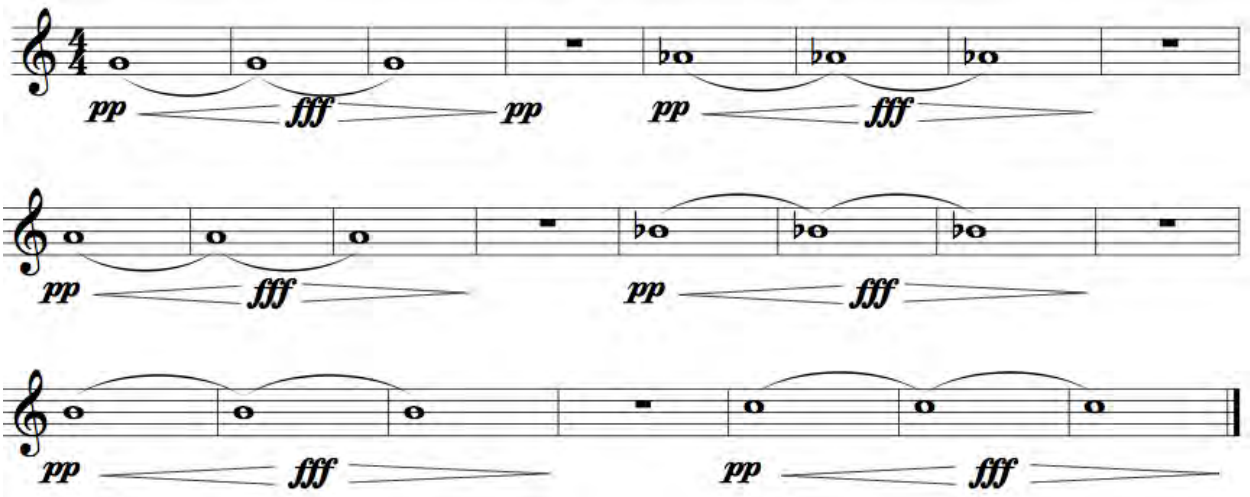
VIII. DYNAMIC STUDIES

Crescendo Diminuendo

♩= 60

Keep the mouthpiece in contact with the lips throughout. The speed of the air determines the volume. Increase the airspeed to play louder; decrease the airspeed to play softer. Tap your foot to establish time, and subdivide during the rests.



If you feel tired after the dynamic study, play a few pedal F#s:

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VII. REBALANCE AND RECOVERY

Through the practice of note tasting, your body learns to respond reflexively to a precisely timed setup. The "taste" of a note includes the subdivision and timing, hearing it, visually picturing the note, and feeling it in your chops. These are all right brain, high sensation-based activities. All too often, players aim for notes with their brains and willpower. With practice, you can train your body to respond in a reflexive manner to where that note lives and what it "tastes" like. This can practically guarantee accuracy!

Note Tasting

♩= 60

Continue upward as far as is comfortable…

*Use the Pedal #F as a recovery from fatigued chops.

Variations:
1) Breathe attack, mouthpiece stays on chops during rests
2) Tongue attack, mouthpiece stays on chops during rests
3) Breath attack, remove mouthpiece from chops during rests
4) Tongue attack, remove mouthpiece from chops during rests

The Recovery: Set up one measure of subdivided time. Ghost a "G" (measure 1) by blowing air through the instrument while almost playing note. Subdivide third beat and gently bring in ghosted note. Leave chops in place while inhaling for the next note.

Pick notes based on ease (ex. middle C, E, G).

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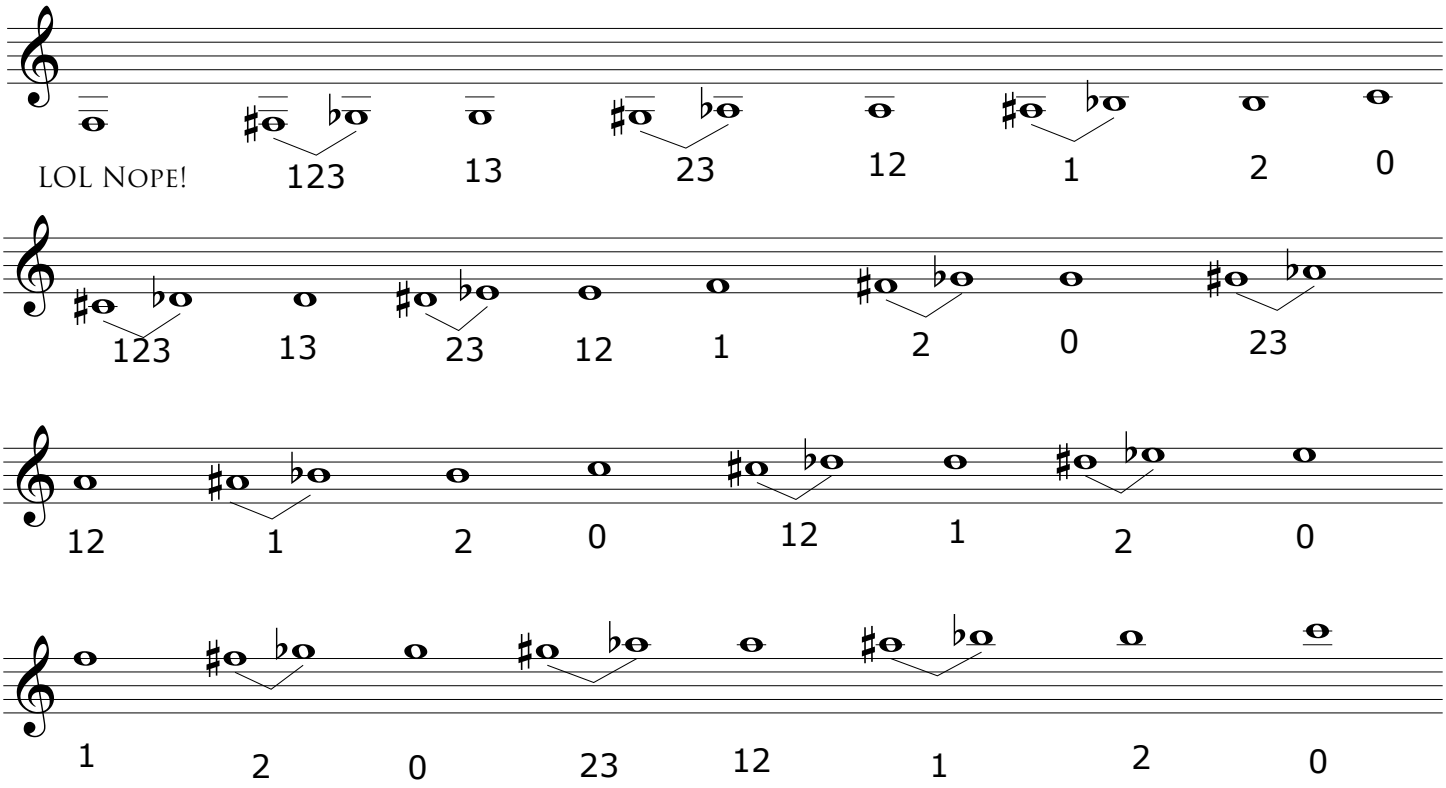
Notes

Blank Practice Chart

Week of:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Warm-up/Daily Drill								
Breathing								
Lip-Slurs								
Articulation								
Scales								
Etudes								
Solo								
Excerpts								
Total Time								

F Mellophone Fingering Chart



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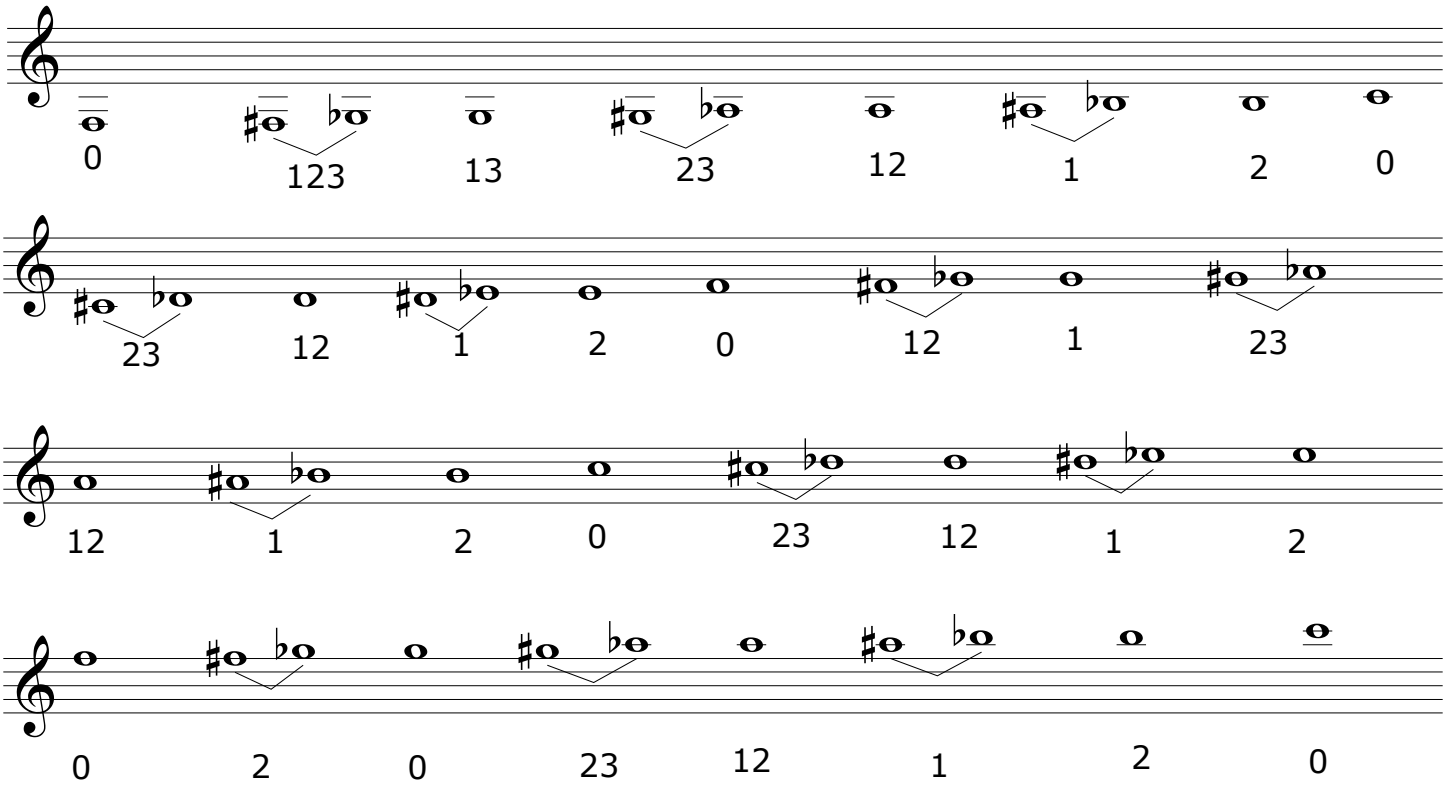
B-flat Marching Horn Fingering Chart



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Comprehensive Fingering Chart

- Fingerings are listed in order of preference - top to bottom - The underlined fingering is the preferred fingering.

- The harmonic the note is derived from is in parenthesis.

- 1/2 combinations and 3rd valve are interchangeable (3rd is usually a lower or "flat" fingering)

0 (1)
T13 (1)

T23 (1)

T12 (1)

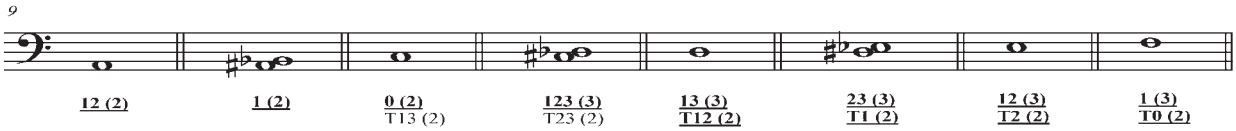
T1 (1)

T0 (1)

123 (2)

13 (2)

23 (2)



9

12 (2)

1 (2)

0 (2)
T13 (2)

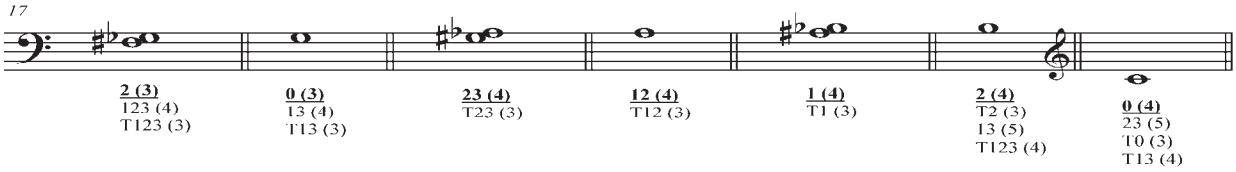
123 (3)
T23 (2)

13 (3)
T12 (2)

23 (3)
T1 (2)

12 (3)
T2 (2)

1 (3)
T0 (2)



17

2 (3)
123 (4)
T123 (3)

0 (3)
13 (4)
T13 (3)

23 (4)
T23 (3)

12 (4)
T12 (3)

1 (4)
T1 (3)

2 (4)
T2 (3)
13 (5)
T123 (4)

0 (4)
23 (5)
T0 (3)
T13 (4)

24

12 (5)
T23 (4)
123 (6)

1 (5)
T12 (4)
13 (6)

2 (5)
T1 (4)
23 (6)
T123 (5)

0 (5)
T2 (4)
12 (6)
T13 (5)
123 (7)

1 (6)
T0 (4)
T23 (5)
13 (7)

2 (6)
T12 (5)
123 (8)
T123 (6)
23 (7)

0 (6)
T1 (5)
13 (8)
T13 (6)
12 (7)
T123 (7)

T23 (6)
23 (8)
T2 (5)
123 (9)
1 (7)
T13 (7)

32

T12 (6)
12 (8)
T0 (5)
T13 (9)
123 (9)
2 (7)
T23 (7)

T1 (6)
1 (8)
23 (9)
123 (10)
0 (7)
T12 (7)

T2 (6)
2 (8)
12 (9)
13 (10)
T123 (8)
123 (11)
T23 (7)

T0 (6)
0 (8)
23 (10)
1 (9)
T13 (8)
T12 (7)
13 (11)

T23 (8)
12 (10)
2 (9)
123 (12)
T123 (9)
T1 (7)
23 (11)

T12 (8)
0 (9)
1 (10)
13 (12)
T13 (9)
T2 (7)
12 (11)

T1 (8)
T23 (9)
2 (10)
23 (12)
T0 (7)
1 (11)
123 (13)

T2 (8)
0 (9)
T12 (9)
12 (12)
T123 (10)
123 (14)
2 (11)
13 (13)

40

T0 (8)
T1 (9)
1 (12)
T13 (10)
13 (14)
123 (15)
0 (11)
23 (13)
T123 (11)

T2 (9)
T12 (10)
2 (12)
23 (14)
12 (13)
T123 (12)
123 (16)
13 (15)
T13 (11)

T0 (9)
T1 (10)
0 (12)
12 (14)
T13 (12)
1 (13)
23 (15)
13 (16)
123 (17)
T23 (11)

T23 (12)
T2 (10)
23 (16)
1 (14)
2 (13)
12 (15)
13 (17)
T12 (11)
T123 (13)

T12 (12)
T0 (10)
12 (16)
T1 (11)
T13 (13)
T123 (14)
All Other
F Fingerings

T1 (12)
1 (16)
0 (14)
T2 (11)
T23 (13)
T13 (14)
All Other
F Fingerings

T2 (12)
2 (16)
T0 (11)
T12 (13)
T23 (14)
T13 (15)
T123 (16)
All Other
F Fingerings

T0 (12)
0 (16)
All Other
Bb and F
Fingerings
(except T2)

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