# Joel Quarrington



Five Mechanical Exercises

from

The Canadian School

of

Double Bass











# About the Course

Joel Quarrington takes us through five mechanical exercises from his "Canadian School of Double Bass" technique, that he believes are essential to playing the double bass with effortless expression. It should be noted that Joel tunes his bass in fifths (C - G - D - A), but all the information presented here relates to fourths tuning just as much.

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#### Introduction

Joel arrived at these exercises while searching for a more expressive vibrato, starting with one question: "What is vibrato"? He answered: "Going from the note, below it, and back to it." In other words, we define the highest pitch of the note, then rock the finger only flat of the note to make vibrato. Joel observed the way a violinist would approach the fingerboard with their hand, and mimicked it with his finger at a more perpendicular angle to the string (as opposed to a right angle). He uses this orientation all over the instrument, not just in thumb position. To make use of that nice first finger angle, we need to keep the hand relaxed and supple and use rotation to activate the other fingers.

This new way of thinking about vibrato and the left hand led to some other benefits:

- 1. Wide, beautiful, expressive vibrato.
- 2. Imperviousness to friction with easy, smooth shifting and glissandos.
- 3. Inherent rhythmical brilliance in the left hand that coordinates easily with the right hand.
- 4. Ability to play parallel fourths (or fifths in Joel's case) with two fingers and vibrato.
- 5. Seamless shifting without accents, with "the move."



# Things to Keep in Mind while Exploring these Ideas

#### Retaining strength in the hand

The more naturally-shaped you can keep your hand, the more strength you can retain in it. In other words, keep your hand small, instead of trying to retain spaces between your fingers with a spread-out (extended) hand frame. In the German fingering method, there is an imposed spacing between the first and second fingers (extension) that creates tension. In the Italian fingering method, there is an imposed spacing between the third and fourth fingers (extension) that creates tension. In Joel's method, he uses both systems together and applies them to keep the hand as small as possible, allowing the hand to cover the spacing of a minor third, even in first position.

#### The move

Thumb position is a good place to start learning this:

- Rest the thumb on the octave harmonic
- Rest the elbow of the left arm on the shoulder of your bass so that it is relaxed.
- Play a C-natural with the 1st finger, and without moving the thumb from the octave harmonic, shift back the fingers to the 3rd finger on the B-flat one tone below.
- This "move" should be made without moving the elbow at all, just rotating the hand from the wrist and forearm.
- Now try this same move in neck position, again between a C-natural and B-flat, being careful not to move the arm more than necessary to rotate (do not move your elbow).

# Learning How to Practice the Five Mechanical Exercises

The connection between left and right hands, and learning to coordinate them, is profound. To stay loose in the left hand, we have to stay loose in the right hand as well. Every bow change needs to be smooth and loose, cushioned by either the instigation of the bow change in the right hand and wrist, or the reaction of the loose wrist and hand to the bow change of direction in the arm. The bow change should never be stiff and jerky in these exercises.

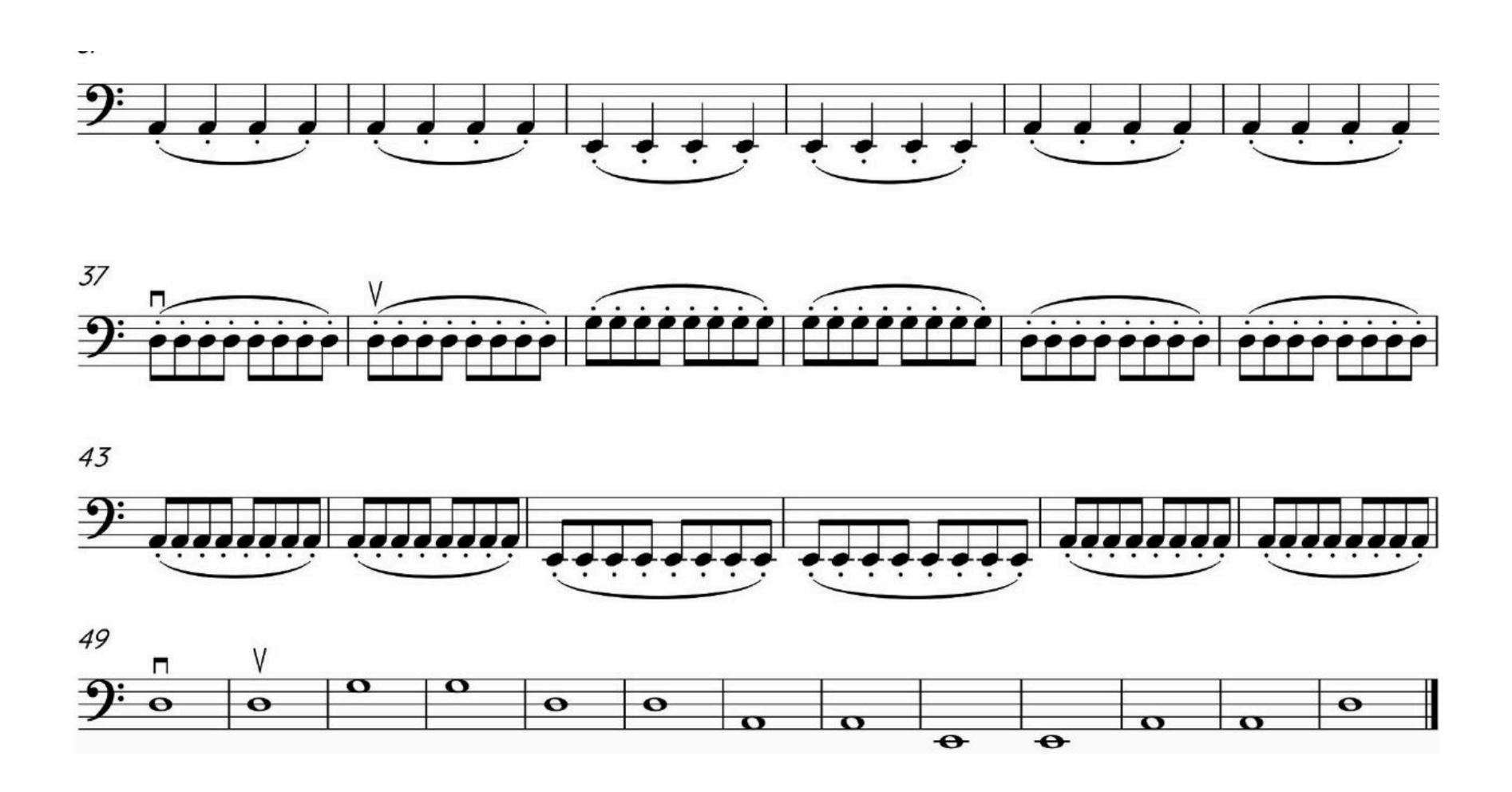
You can practice this by disabling your right arm by placing it against the shoulder of your bass, and only using the range of motion in the wrist and fingers to move the bow across the string.

#### **Exercise 1: Find the weight**

Without pressing down at all (just natural arm weight), play this clean stop-and-start exercise. The string should speak easily with just the weight of the arm. It should also stop easily by simply stopping the movement of the arm, no addition of weight or lifting of weight out of the string required. This is easier on the thinner top strings, and at the frog; the lower strings and upper half of the bow will be harder to find the weight in without pressing.

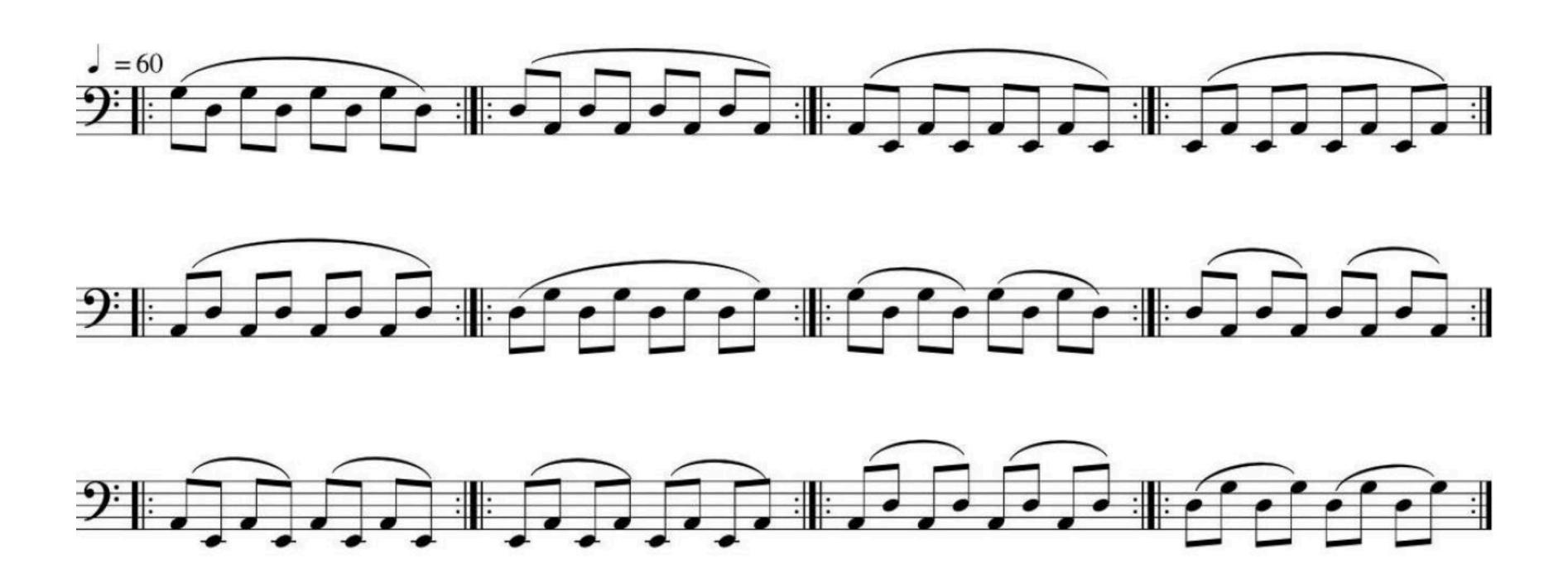
It should be noted that Joel is careful not to use too much rosin on his bow for his particular setup in this exercise. He suggests you do not rosin your bow before trying the exercise. (If you play for a minute or so and still feel you need rosin, add it after the bow hair is warmed up a bit!) Joel also introduces the idea of "overspin" with the bow here. Rather than the arm being static, you can add upper body motion to your bow stroke to increase power and volume in your sound.





**Exercise 2: String crossings** 

This is just an open string exercise. The closer to the bridge you can do this, the more difficult it is, but the more you'll get out of it. Playing close to the bridge means that you will not be able to push into the string at all to make a good sound with the fundamental core of the string activating. Be careful to minimize the amount of arm movement you use to change strings. You should be able to change strings using just a turn of the wrist, assisted by the fourth finger of the right hand (German/underhand bow), or the wrist and finger joints (French/overhand bow). Prioritize the thought "no pressing ever" over rhythmical integrity here, though that is important too!

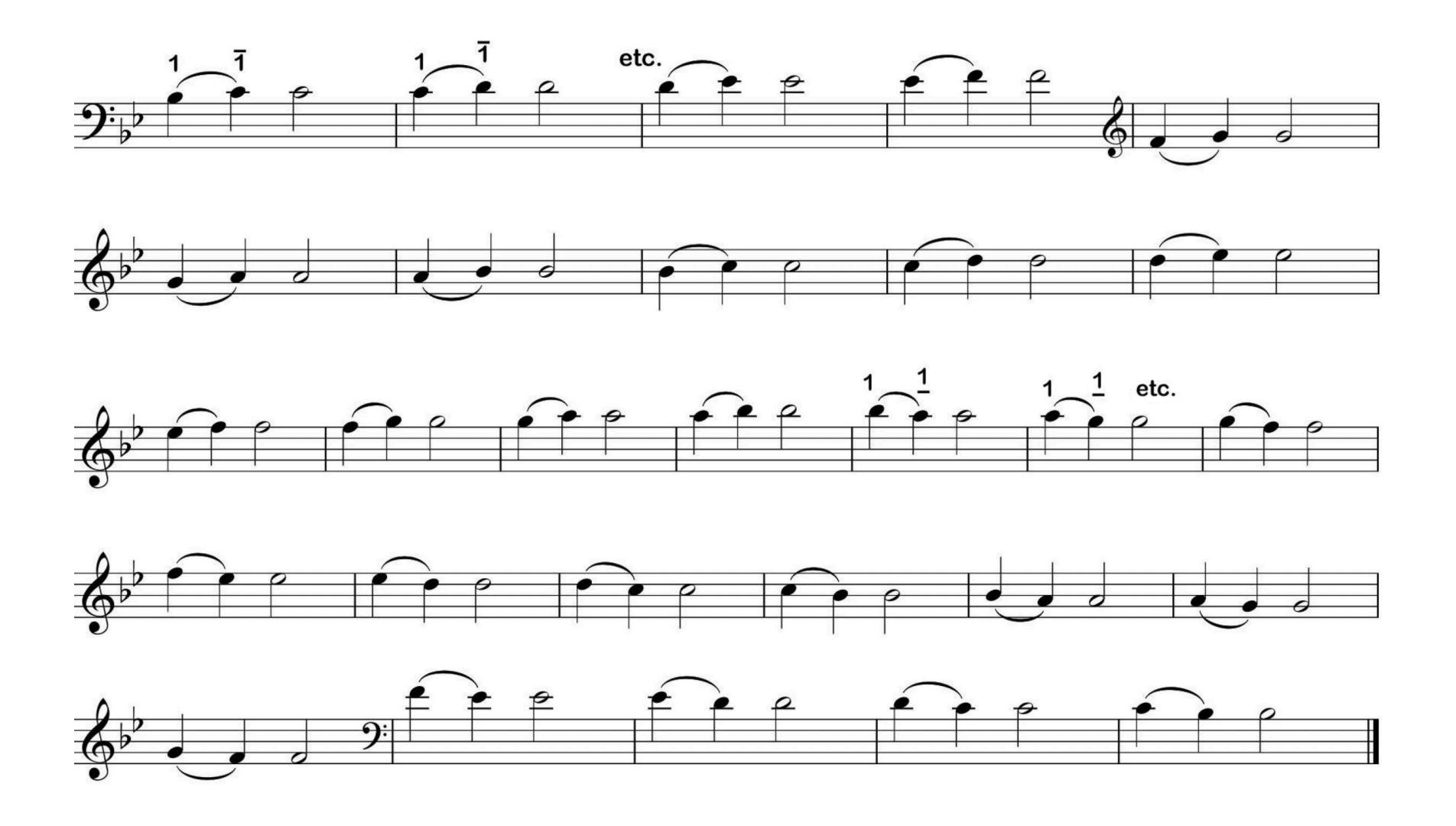




### **Exercise 3: Hanging**

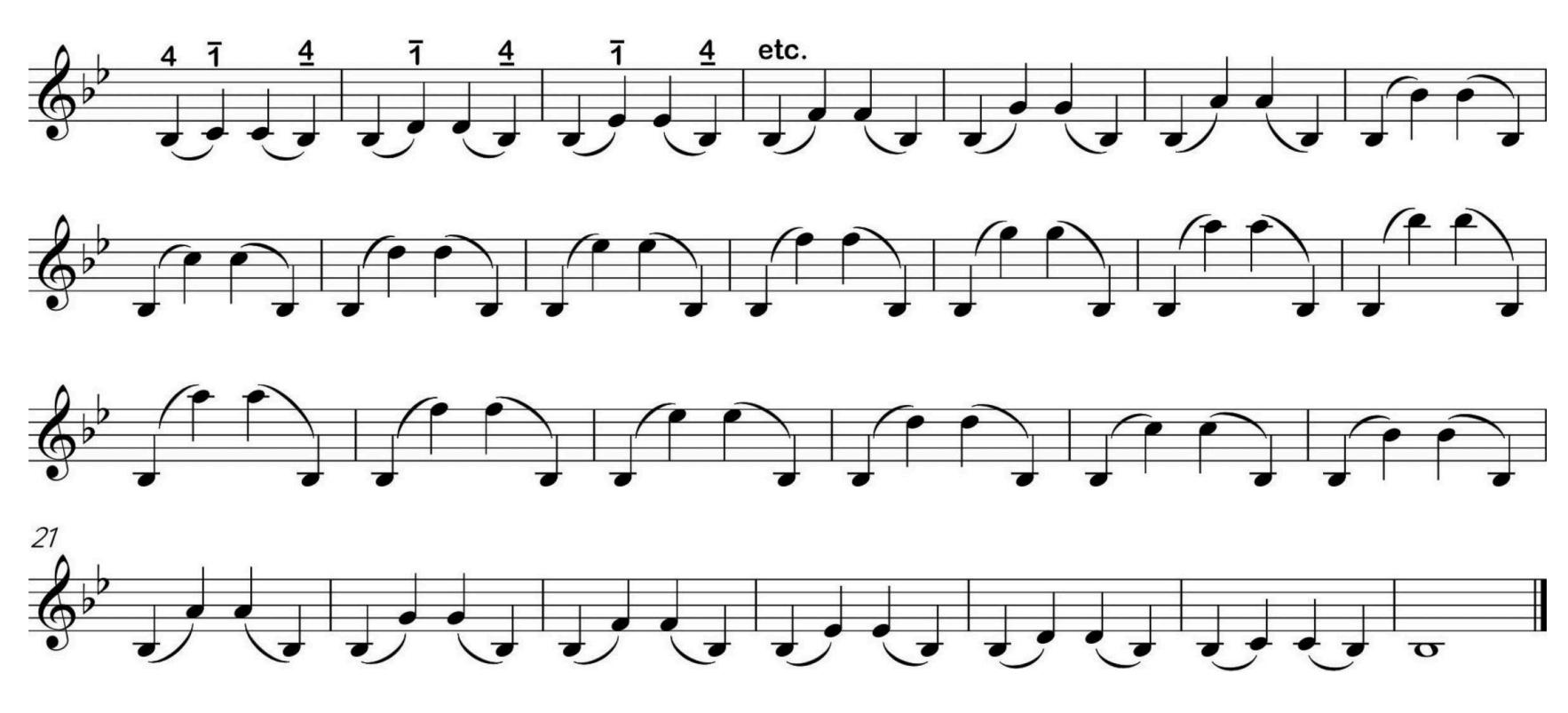
This is a one-finger scale. Practice first without vibrato to find the "maximum" hanging position of the finger on each note. Then, practice with non-stop vibrato. Next practice with all four fingers, adjusting the balance between the active finger and the thumb. Always keep the hand small (**not** extended) to keep the vibrato relaxed and the hand balanced in the optimum position for that particular finger.

Maintain the correct hanging angle for each finger throughout this exercise; the first finger pad should have the string running through it, as Joel showed with the marker on his finger. A way to check this is to play this exercise on the D string and use the second finger to create a perfect fourth (in Joel's case, a perfect fifth) on the top string adjacent to the first finger. To do this while maintaining proper finger positioning, the wrist must be high.



Exercise 4: Long shifts with the move

This sounds like the classic "vomit" exercise, but this exercise serves a different purpose. Start with your fourth finger on a B-flat, and shift up to your first finger on a C. Play by ear, not positions, to connect your hearing to your finger. Once you hear that you've reached the target note with your ear, you stop moving your finger. If you learn to connect your finger to your ear like this, it does not matter what bass string length you're using, or trying to calibrate your hand like a measuring tool.



#### **Exercise 5: Slow shift and pivot**

Recall near the beginning of this lesson, the move between B-flat and C in the thumb position without moving the arm from the elbow or above. Use a drone (or a friend) to train good intonation in this exercise, moving slowly and smoothly. Focus on using the left wrist rotation to make the shift upwards, and the third finger pulls back for the downward shift. If you use the arm to shift, chances are you will add an unwanted accent. Leave each finger joint rounded, releasing weight from each finger as soon as the next finger is activated. Observe the rotation in Joel's hand, keeping the balance through each finger, and putting the intonation in the exact right spot.





## Long Tones

This is where everything discussed so far comes together. Doing this all at the same time is one of the most challenging but useful ways to learn anything, including new technical skills. The mind should stay very active during this chromatic long-tone exercise to make sure everything is coordinated properly. Joel recommends practicing long tones in three octaves, first without vibrato, then again with continuous, non-stop vibrato.

- Relaxed arms.
- Hanging the fingers off the fingerboard.
- Bow arm loose and flexible, with one relaxed weight.
- Time shifts to line up with the motion of vibrato.

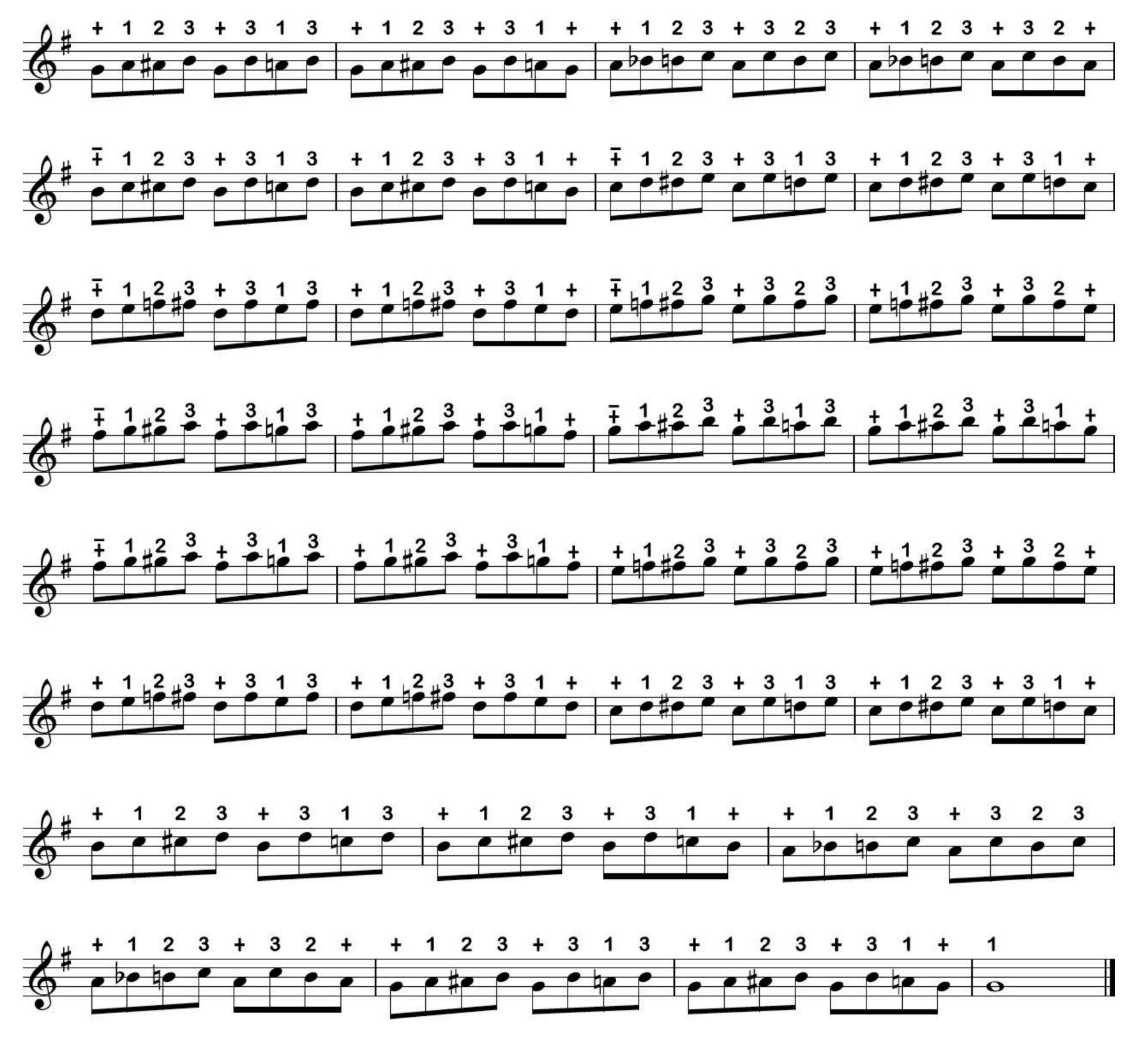
# Supplementary Exercises

#### Micro-shifts with "the move"

The idea here is to replace fingers over the same note, making the move as seamless and inaudible as possible. This replacement requires minimal movement of the hand, especially the thumb. You can practice this with a major scale, both ascending and descending. In thumb position, on the way down, it should resemble "the Moonwalk."

#### Coordinating using rotation, "El Perro"

This is inspired by an exercise from the Italian master bassist, Franco Petracchi. First, make sure your thumb is set up in the right place on the string. The string should pass over the flesh of the thumb between the knuckle and the nail, on the side of the digit. The fingers should hang adjacent to that, facing the floor. You can practice finding this position using a "one–finger scale" in thumb position, using only the thumb. The exercise then works up the string, using the thumb on the bottom of a three–note grouping, within the tonality of a major scale, going between chromatic and semi–chromatic positions. This exercise is shown more thoroughly with variations in Joel's technique book, "The Canadian School of Double Bass."



# Limbering Exercises

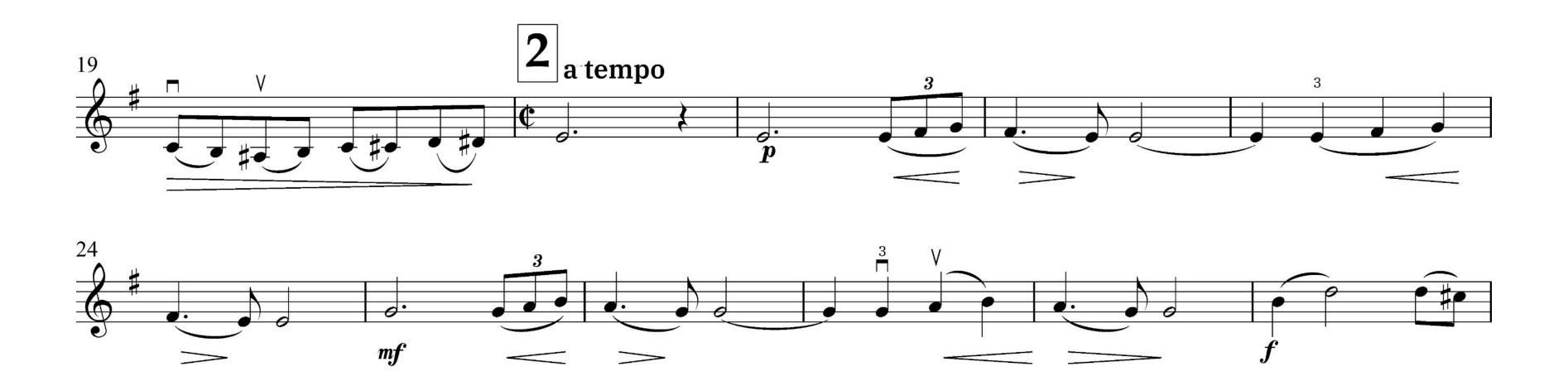
There are many variations that one can do for these exercises. Joel uses these to practice rotation in the hand, and you can use separate bowings to practice coordination. Keep the hand rolling, with the angle of the hand changing for each finger. At fast speed, your hand should resemble a wave (not static!)

#### Scale progressions

Joel uses these scale progressions to demonstrate three notes in the hand in any position. The exercise groups three notes from a diatonic (major) scale together. Use pivots and rotation to keep the hand small, while always playing three notes in one hand position. You will change between major (whole tone + whole tone) and minor (whole tone + semi-tone, or semi-tone + whole tone). After groups of three, you can practice groups of four. These are always fingered in hand positions of two notes + two notes. In groups of five, combine threes and duples.

Each scale progression is a fingering made up of either three notes + two notes in the hand, or two notes + three notes in the hand (3+2 or 2+3, with one shift). There are great places to apply the lessons learned in these scale progressions all over the repertoire.

#### Koussevitzky, Concerto, 1st mvt., mm. 21-26:



Brahms, Cello Sonata Op.38, 1st mvt., mm. 9–16:



Mahler Symphony No.1, 3rd mvt., mm.3-10:

(Note that Joel demonstrates this using the fingering as if tuned in fourths, while tuned in fifths; it therefore sounds a tone higher in this video.)



This method of using three notes in the hand is also very useful for fast passagework.

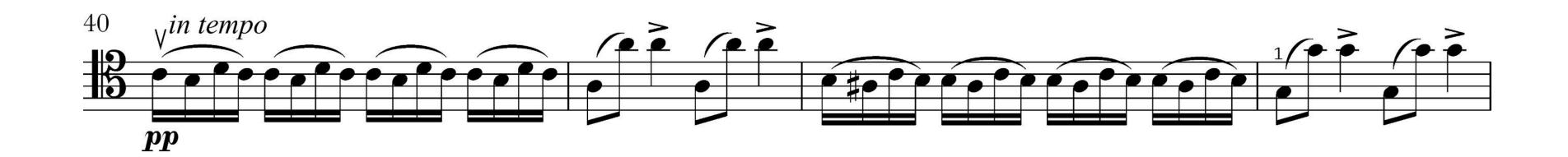
Mozart, Symphony No.39, 1st mvt., mm. 86-96:



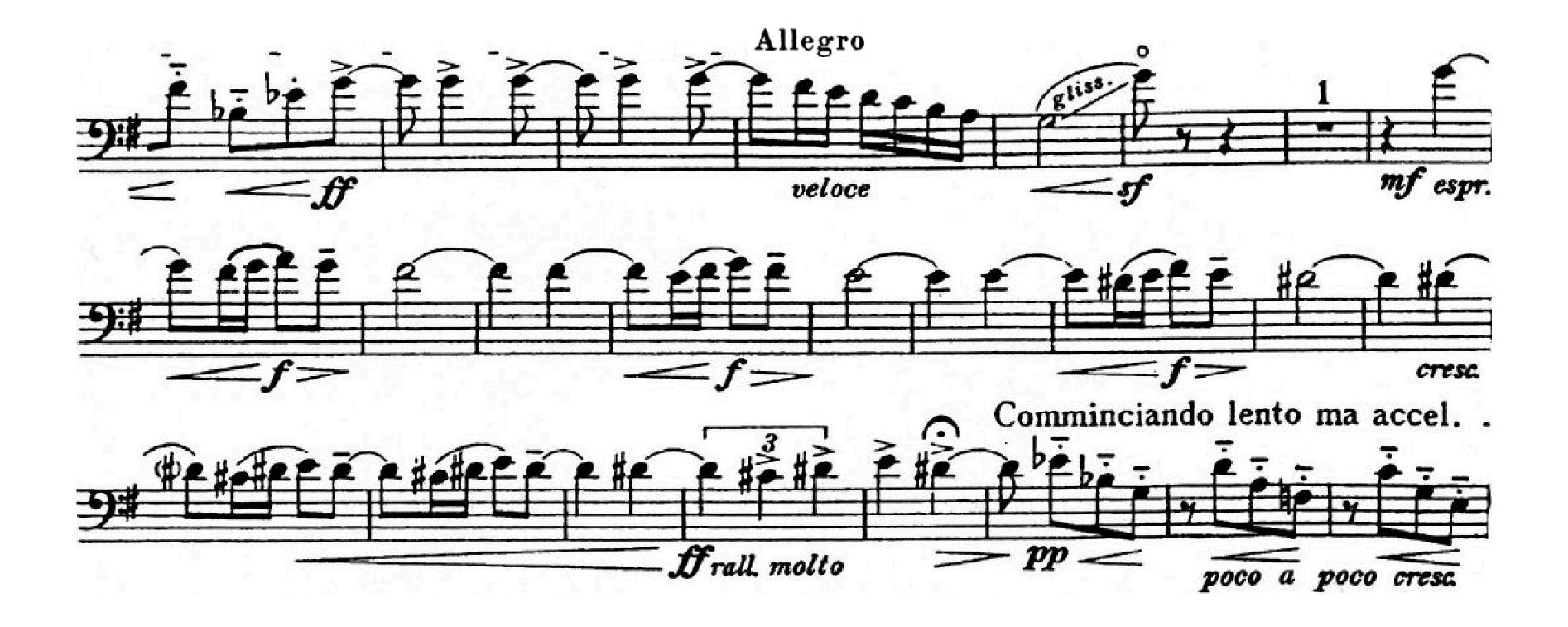
Mozart, Overture to The Magic Flute, mm. 117–123:



Schubert, Arpeggione Sonata, 1st mvt., mm. 40-42:



Britten, Young Person's Guide to the Orchestra, Variation H:



#### Intervals and Chords

Composers very often provide lines that are intervallic or chordal, rather than scalar when writing for bass. We must practice intervals musically, so that we bring this same attitude of musical playing to our bass parts in the orchestra. Practice these legato and with vibrato. In thurno position, the thumb plays a very important role, acting as an anchor for the hand in shifts both up and down. Thirds, fourths, and fifths are practiced shifting along the string. Sixths, sevenths, and octaves should always be practiced played across two strings.

Brahms, Symphony No.2, 1st mvt., mm. 1–12:



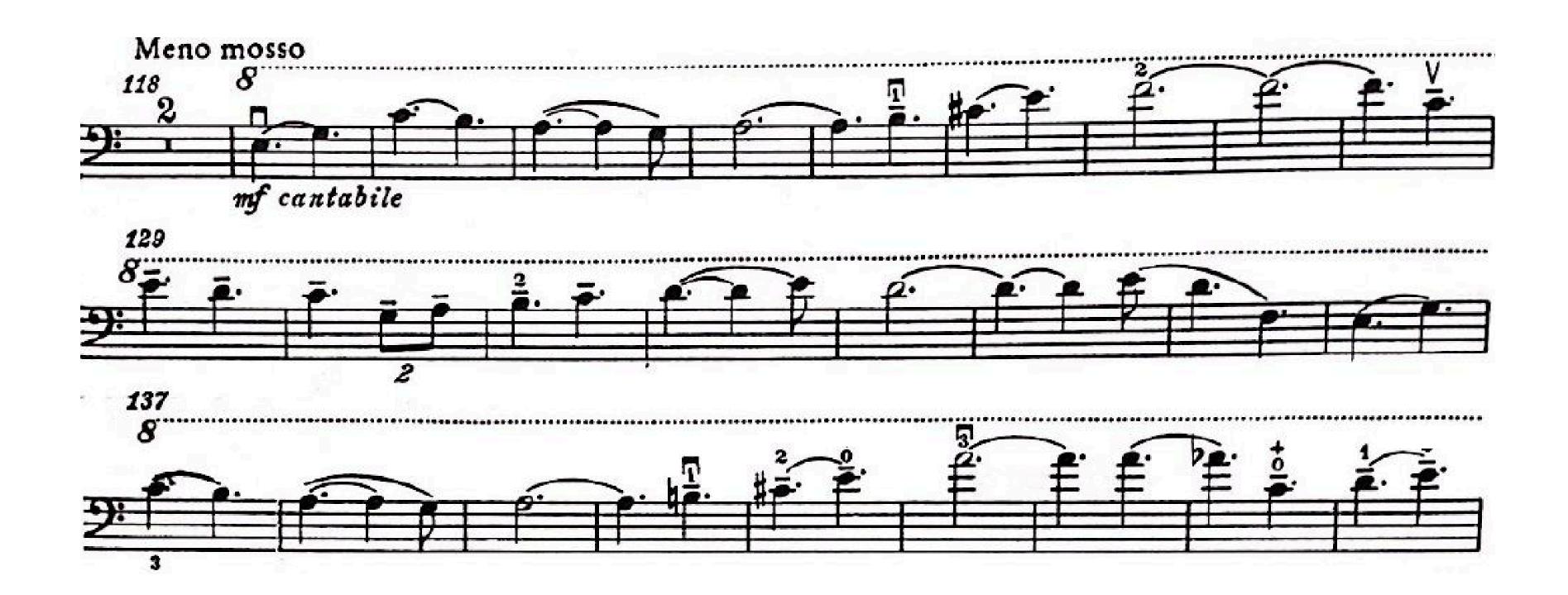
Mm. 54-64:



Mm. 136-151:

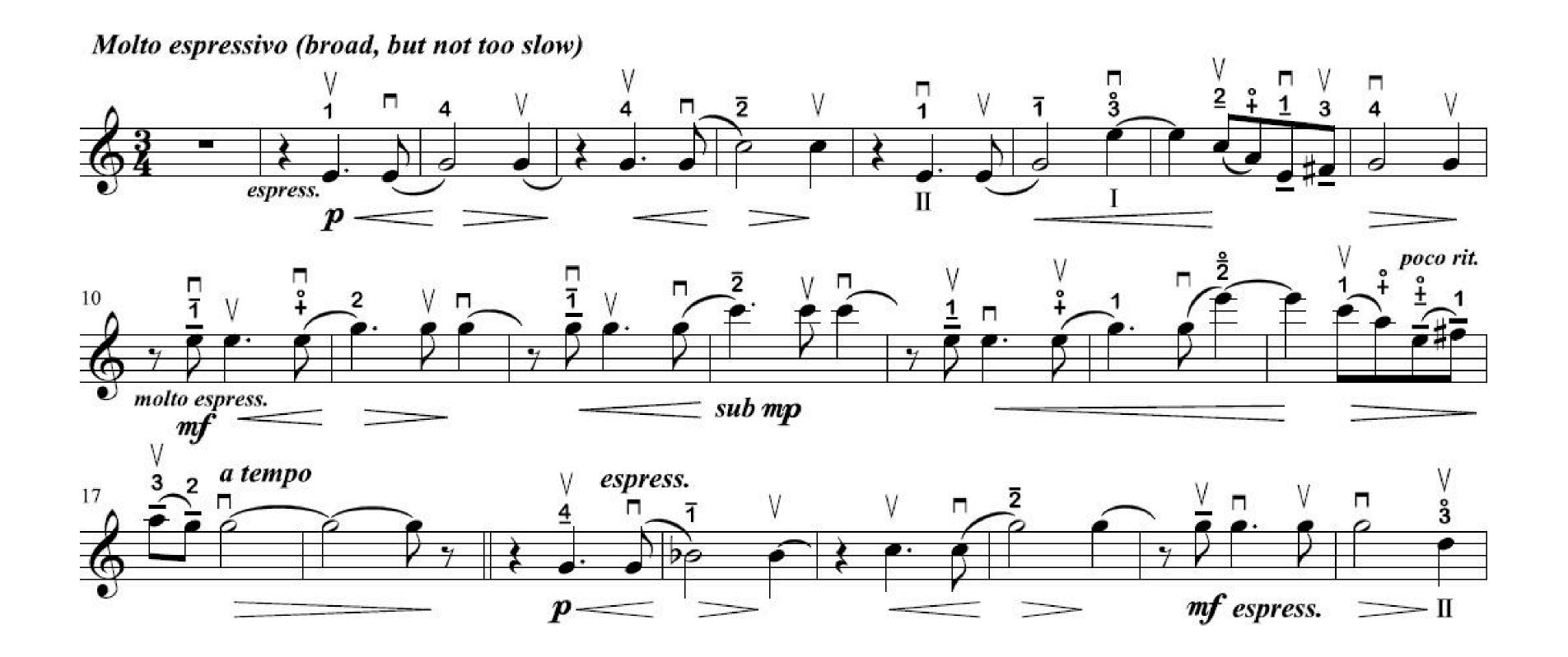


R. Gliere, Tarantella, Op.9 No.2, mm. 120–151:





Korngold, Garden Scene from Much Ado About Nothing, mm. 1–24



Bottesini, Concerto No. 2, 1st mvt., mm. 29-31:



Prokofiev, Romeo and Juliet, Reh. 49–50:





Koussevitzky, Concerto, 1st mvt., mm. 29-40:



Koussevitzky, Concerto, 1st mvt., mm. 7–10:

