
BASICS

Right first finger: avoiding pressing

'[The bow] is too heavy at the *nut*, i.e. prevents the string vibrations, and too light at the *point*, i.e. unable to set the strings vibrating; and only in the middle will it produce tone through its own weight. Hence, the bow must be pressed down upon the strings at the *point*, and at the *nut* it must be slightly raised. The pressure at the point is produced by the *index finger*, the raising of the entire bow at the *nut* by the *little finger*. The first is paired with pronation (turning outward), the second with supination (inward turning)...It is the *index finger*, therefore, which in the main acts in a *tone-producing* way, and the little finger in a *tone-preventing* manner.'

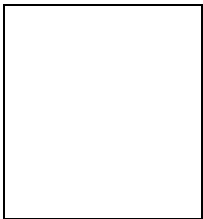
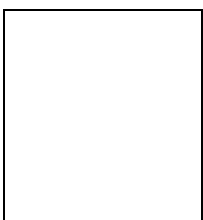


Fig 1 The second finger cannot push the bow down into the string



(2) The second finger can exert leverage

Tone production in the upper half of the bow requires a different approach from playing in the lower half. The question arises because of the natural weight distribution of the bow:

- The point-of-balance is not at the centre of the bow, so the bow is heavier in the lower half and lighter in the upper half.
- The hand is more directly above the strings in the lower half. Below the point-of-balance, you can more easily rest the weight of the whole arm into the string.

Because of this heavy-light imbalance, there is a danger of scratching or choking the tone in the lower half, and of playing too lightly in the upper half. Therefore weight should therefore be taken *out* of the string in the lower half, and put *into* the string in the upper half.

Lightening the bow in the lower half is simple enough: the fourth finger balances the weight, and you can lift the bow slightly out of the string so that it 'floats'. The question is how to apply weight in the upper half.

Speed not pressure

The first principle of tone production is always to create expression or character with speed of bow rather than pressure. This is true even when you deliberately use extra weight or slower, heavier strokes to create specific darker or special colours: bow speed is still always at the front of your intention.

So to play with a sweet, singing tone in the upper half, it is essential to avoid direct pressing with the first finger itself, or pressing by leaning the hand into the finger too much. One exception is when you begin a note with a 'click', as in *martelé* when you use direct, downward, first finger pressure to 'pinch' the string.

However, there is a view in favour of generally leaning into the first finger in the upper half. Carl Flesch advocated this approach and described it precisely (see left). The argument against it is that although Flesch did not mean literally to press the first finger downwards (he was careful to say that the pressing is coupled with leaning the hand anticlockwise into the bow), it is still an approach based on weight and the application of pressure by the first finger. So what is the solution that creates an equal tone in the lower and upper half? There are three principle ways of producing an even tone without having to 'press' with the first finger:

1: Using the second finger to share the work

It was Flesch's bow hold that led him to think so much about pressing with the first finger and pronating. He positioned the first and second fingers on the bow either side of the thumb, so that the thumb was between them. But this goes against the laws of leverage, since it puts the first finger too close to the pivot (the thumb).

Further from the pivot, a much smaller amount of pressure from the first finger has the same effect as a much larger amount close to the pivot. A small child sitting at the furthest end of a see-saw, can balance a large adult on the other side but sitting close to the centre; a door handle is positioned away from the hinges, etc. Also, the effects of pressure are more drastic closer to the pivot, and less finely graduated, than when applied further away. Try playing a delicate note on the piano by pressing the back of the key instead of the front. It is interesting to note that none of Flesch's famous pupils, such as Henryk Szeryng or Joseph Hassid, held the bow as he suggested to.

If the first and second fingers are instead placed higher up the bow, not only does the first finger have more natural leverage but the second finger can join in as well, also exerting leverage on the bow and reducing the amount the first finger has to do. Although the second finger is positioned only slightly to the left of directly opposite the thumb (Fig. 1), the middle joint, when the hand pronates, contacts the bow a considerable distance to the left of the thumb (Fig. 2).

If the second is positioned directly opposite the thumb, or any degree to the right of the thumb, it cannot contribute to tone production. A quick experiment illustrates this clearly:

- In the upper half, play *f*, sustained strokes without the first finger on the bow, and with the second finger positioned well to the left of the thumb. Play into the string with the second finger.
- Try to do the same with the second finger slightly to the right of the thumb and see how all the leverage is now lost.

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2: Creating weight from the hand

Playing into the string from the hand is a major aspect of right hand technique. The feeling of application of weight that it produces is subtle, and quite different from arm weight or forearm rotation. Curiously, no mention of this is made in many of the most comprehensive treatises on violin playing. The American violinist Gaylord Yost (1888 - 1958) was one exception (see right).

When Yost said that the movement comes from the wrist (the block capitals are the same as in the original), he must have meant that it comes from the hand, moving *at* the wrist. (Similarly, the modern term 'hand vibrato' has replaced the old term 'wrist vibrato'. After all, what can the wrist do?) He must also have meant only in the upper half of the bow, not in the lower half.

But does all necessary pressure in the upper half come from the hand? As a student I once had a lesson from a leading soloist/teacher in London who said the opposite, that all pressure into the string comes from the upper arm. A little practical experimentation proves that sometimes you want one, sometimes the other, and sometimes both at once. There is also forearm rotation, a degree of which is added as appropriate.

Feeling the difference between 'arm weight', 'hand weight' and forearm rotation

Rest your right hand lightly on your left forearm (Fig. 3).

1 Keeping the remainder of your right arm 'passive' and 'floating', push your hand down heavily into your left forearm. Move the hand only from the wrist.

2 Then use the weight of the whole arm to bring the hand down heavily into the left forearm.

Feel the weight of the right upper arm channelled through the right hand into the left forearm.

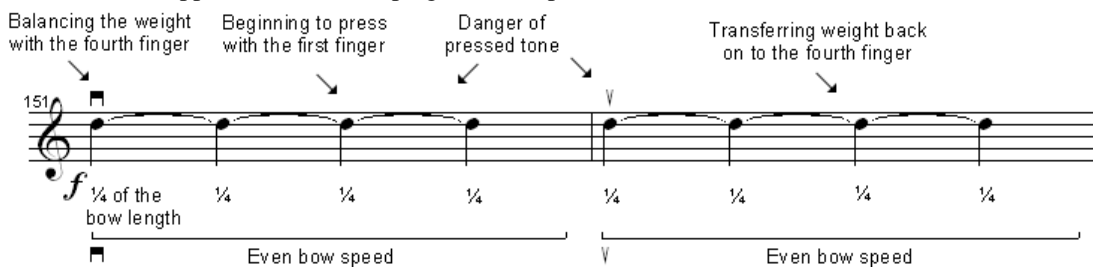
Notice the different qualities or sensations of weight feeding into the left forearm, depending on whether you use the hand or the arm.

3 Use forearm rotation to lean the hand on to the first finger: a different sensation of weight again..

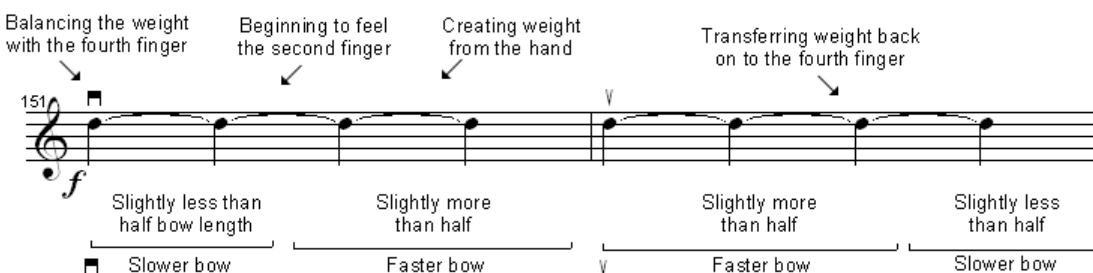
Supporting the wrist in the upper half, and playing into the string with the hand, is quite a feature of the typical Eastern European bow arm. It will be no co-incidence that one of Yost's teachers when he studied in Berlin in the early 1900s was the Russian pedagogue Issay Barmas.

3: Using faster bow speed in the upper half

Use extra bow speed, rather than pressure alone, to compensate for the lightness of the bow in the upper half. This produces a silky, sweet, ringing tone quite different from the sound you get if the speed remains more constant and you 'press' with the first finger or lean the right hand on to it. An illustration of pressing to sustain tone in the upper half, while keeping the bow speed even:



Instead of this, the way to use bow speed instead of pressure is to have a slow-fast pattern on the down-bow, and a fast-slow pattern on the up-bow. The difference in bow speed is so slight that someone who does not know what to look for should not easily be able to notice what you are doing:



Next month's BASICS returns to the left/right hand, with

Particular attention should be directed to the development of lightness of bowing and one should be constantly alert in detecting undue bow pressure in any style of bowing. Of the greatest importance is the warning that "ALL NECESSARY PRESSURE IN TONE PRODUCTION MUST COME FROM THE WRIST AND NOT FROM THE WHOLE ARM."

Gaylord Yost

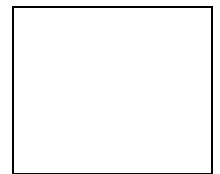


Fig. 3 Feeling the difference between 'hand weight' and 'arm weight'