



FROM THE MAKERS BENCH

Weights and Balances

by Matt Wehling

When people call me asking if I have any bows available for them to try, they will usually have an idea, sometimes a very specific idea, of what weight bow works best for them. Bows can be mysterious tools, and weight is one of only two numbers that is normally available on a bow that is for sale (the other is price!). It is tempting to cling to the idea of weight as a parameter for narrowing down a search for a bow. There are, after all, so many bows to try, and this allows us to immediately eliminate quite a few of them. However, I would urge you to keep an open mind and try bows of varying weights when you are looking for a new stick.

The current standard weights for a violin bow are roughly 58-62 grams for a violin bow, 68-72 for viola, and 79-83 for cello. Outside of shopping for bows, the smallest unit of measure most of us use is an ounce. One ounce is equal to 28 grams, so the difference between a 60-gram bow and one that weighs 62 grams is about 1/14th of an ounce. In real life, it's pretty hard to tell the difference between an object weighing 2 and 2/14ths of an ounce one weighing 2 and 3/14ths of an ounce. I have occasionally asked people to tell me the difference between two ziplock bags, one holding 60 grams of beans and one holding 62 grams. About half the people get it right; which makes me feel it's rather like flipping a coin. Of course, very few of us practice a couple hours a day waving a ziplock bag full of beans around in our right hand, as we do with a bow. Maybe if we did it would be easier to know which bag was heaviest.

In my opinion, balance is a more important criterion than weight. If you have a 60-gram violin bow that is head heavy, the bow will feel unwieldy and clunky. If you take that same bow and put on a different grip/winding that's 2 grams heavier, the bow will be a bit heavier toward the frog. This will make the balance more even, and the net result is that the bow will weigh 2 grams more but will feel lighter. If I ask people what sort of balance they prefer in a bow, most will say that they like something that isn't too heavy at the head, but doesn't weigh too much at the frog. In other words, one that's just right. Like weights, there is a range of balance within which most peoples' preferences fall, some at one end, some at the other, most in the middle. Unlike weights, most

of us don't know how to put a number on the balance of a bow, and thus we pay less attention to this factor than the more easily quantified weight of the bow.

The little example I gave above hints that the weight and balance of a bow can be easily changed. If you get a rehair from a different shop than your previous rehair, it's possible that there's a gram difference in the weight of the bow from when you brought it into the shop. I've experienced humidity changes that have affected the weight of a bow by more than a gram. These are somewhat "accidental" changes. As above, weights can also be changed on purpose, most often by changing the grip and winding. In some extreme cases a change of six grams can be accomplished through manipulating the grip, winding and ivory head plate.

I have a feeling that many of us have arrived at liking a weight of a bow more through a random process than by conscious choice. Initially, we are given our first bow and we continue to look for something similar to that for a long time. Occasionally a different weight bow might be tried, and if it doesn't immediately please it is not chosen, having confirmed our decision that a different weight bow would be, well, different. But in addition to weight there are so many factors that go into making the bow the right one for a player, such as strength, camber, straightness, responsiveness, matching the instrument, and the aforementioned balance. I suggest that many of these are more important than the weight of a bow.

The main point I'm trying to make is not to limit trying a bow simply because of what weight the bow is. Just because your current bow is 60 grams doesn't mean you should limit your bow search to bows near that weight. Don't count a bow out, or in, solely on its weight. After all, you wouldn't be trying another bow if you were 100% happy with the current one.

Matt Wehling's experience includes studying bow making in France for five years with modern French master makers. In 2002 and 2006 he was awarded Gold Medals for his violin and cello bows from the Violin Society of America, and he has contributed to Strings and The Strad magazines. His shop is in Northfield, MN. †