If you get squeaking or weak sounding notes, air may well be leaking out of some finger hole or holes. The more holes you are trying to cover the more likely you are to experience this difficulty. This is a very common problem for beginners. As you place more fingers on the holes, very often one or more fingers that are already covering holes will shift a bit without your knowledge and an air leak will result. Before long this problem should disappear.

THE TWO REGISTERS, OR OCTAVES, OF THE TIN WHISTLE

In traditional Irish music we confine ourselves to playing in the lower two octaves of the instrument's range. It is possible to play into the third octave, but such notes, which are quite loud and shrill, are not called for in traditional Irish playing. If you wish to explore them, feel free, but warn your neighbors first.

A quick glance at the fingering chart shown on pp. 452-453 reveals that the fingerings for the two registers are basically the same. The ways that you alter and control the airstream determine the register and the intonation of any given note.

"KICKING UP" INTO THE SECOND OCTAVE

Whistle players commonly say that you just "blow harder" to move from the first to the second octave. What actually happens when one blows harder in this way is something quite subtle and complex, though it is something that most players learn to do unconsciously, as I did.

By the way, it's interesting to know that when you "kick up" into the second octave you are forcing the air column inside the whistle to vibrate at the first overtone of a fundamental note. When you play in the low octave you are playing fundamental notes. I won't get into the physics, acoustics, and music theory of these matters here. If you are curious, I recommend that you read one of the many good books that address those subjects.

When I examine how I move from the lower octave to the upper octave I find that there are three, or sometimes four different subtle changes happening at the same time that combine to provide the necessary increase in air speed. By the way, it is an increase in air speed, and not air volume or pressure, that is required.

Let's look at the example of moving from low E to high E, blowing a continuous stream of air with no tongue or throat articulation on either note.

First, I notice that my abdominal muscles push out my air a very slight bit harder.

Second, I notice a change in my throat. Looking in the mirror I see my Adam's apple rise and retreat a bit into my neck. This throat change is more dramatic than the abdominal one. I decrease the amount of space inside my throat by changing the shape of the back of my tongue, which in turn forces the air to travel faster through my throat. Reducing the diameter of this air passage by even a few millimeters has a large impact on the speed of the air traveling through it.

Third, I notice a very slight narrowing of the shape of the aperture between my lips, which forces the air to travel faster through them.

A fourth change that can be used, though it is not used in this example, is to give the higher note an attack with a quick puff of air from a tongue or throat articulation.

The first two changes, in the abdomen and the throat, happen quite automatically. Even in beginning whistle classes I have found that absolute novices do these things naturally and without awareness, when prompted to move a note from the low to high octave. (Actually it was a student in one of these classes that noticed the throat change and pointed it out to me. I had been unaware of it for over twenty years.)