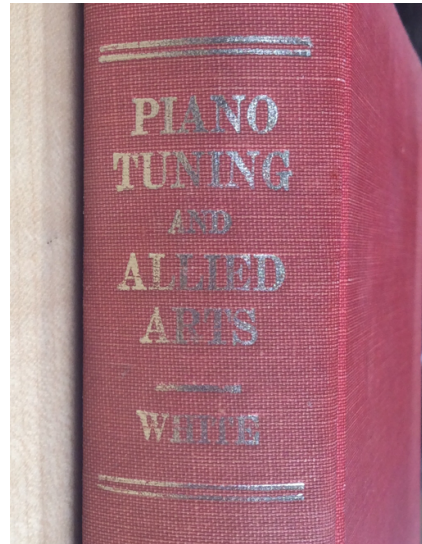
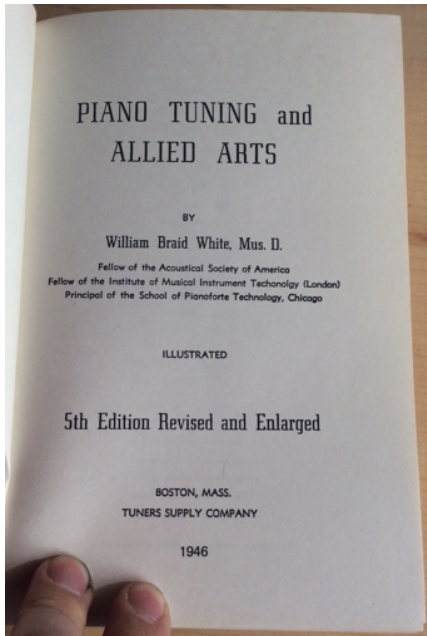


## WISDOM from the Past



In order to understand why a piano goes out of tune, it is first necessary to remember that the whole instrument is under a varying stress.

The following is a quote from one of the first technical manuals written in 1946 by a piano technician. The book is titled *Piano Tuning and Allied Arts* by William Braid White.

### Appendix 1

#### Why does a piano go out of tune?

In order to understand why a piano goes out of tune, it is first necessary to remember that the whole instrument is under a varying stress. The two-hundred and-thirty-odd strings are stretched at average tensions of from one hundred and fifty to two hundred pounds apiece; so that the iron plate, together with the heavy wooden framing carries a strain totaling from eighteen to twenty tons.

Now, this is not constant, for the reason that the steel wire is highly elastic. The soundboard is merely a thin sheet of spruce wood averaging three-eighths of an inch in thickness. If it be properly constructed, the whole board becomes something like a highly elastic spring. The more elastic it is, the freer and more agreeable will be the tone emanating from the piano.

Unfortunately this very construction is extremely sensitive to all changes of temperature and barometric pressure. Thus, in summer time, throughout the greater part of the country, there is much moisture in the air most of the time, and rain is frequent. Wood, under these conditions, swells up, nor will any kind of coating protect a wooden sound-board from these influences. On the contrary, when the heat is on during the colder months, the air in the rooms becomes much drier, owing to the evaporation of moisture, and failure to keep on hand open vessels of water, flowering plants or other moisture retainers or humidifiers. Consequently the moisture in the soundboard passes off, the board shrinks, the strings slacken down, and the pitch drops.

Now it is perfectly evident that even where conditions are not extreme, and even in climates which have only a comparatively short range, this process is continually going on.

Every change of a degree in temperature, or of one-tenth of an inch in a barometer, has its effect. The soundboard of the piano, then, is always slowly rising and falling through short distances, and constantly, therefore, suffering variations in its ability to hold the strings up to proper pitch.

On the other hand, if the piano be neglected, and unless it be tuned at least once every change in season, say four times a year, during Spring, Summer, Autumn and Winter, it will not stand in tune.

From the layman's standpoint, four tunings a year should be sufficient. The tuner knows however, that if he had the time to tune his own piano as often as his ears tell him, he would tune it once a month at least.

From a strictly scientific point of view, it is probably true to say that no piano ever made has stood in tune, without a drop or a rise, for more than twenty-four hours, unless it were maintained at a constant temperature and under constant barometric and hygroscopic conditions in a laboratory.

So much then for the frequency and need of tuning. If a piano is neglected, if it be allowed to go through from one season to another, say, from Spring to Winter, without tuning, it will probably at the end of that time be considerably lower in pitch than it was originally. It will have gone through a rise, followed by a fall, and the fall will be greater than the first rise.

A fine piano is a work of art. Therefore to treat it roughly, carelessly or negligently is to commit a crime against a beautiful piece of expensive craftsmanship. To pay a lot of money for a fine piano and then allow it to go to ruin for lack of expert care is not merely aesthetically wrong—it is bad business.

### **\$5 OFF YOUR NEXT TUNING**

For every person you refer me to that I complete work for, I will give you a \$5 credit toward your next tuning as my thanks. This only applies to private piano owners and not to institutions (Churches, Schools, Piano dealerships, etc.).