

THE “VIRZI TONE PRODUCER”. A USEFUL DEVICE FOR THE CBG?

Brian Lemin. July 2009

This article is inspired by a picture of a CBG with a similar device which I admired at the time and downloaded his picture of it in the CBG. Sendipitously I recently discovered the Virzi Tone Producer in the following web page.

<http://www.siminoff.net/pages/virzi.background-2.html>

Roger Siminoff deals with this invention and its use in great detail and all persons interested in experimenting with this device on an individual basis should clearly study his article. I suspect that commercial use of such a device would be breach of patent or copyright. He also has a PDF on its construction on the site.

Introduction.

I will start with the picture that interested me when the CBN member first published it. I reproduce it here with the permission of “Perfesser Blue”. Thank you



There it is, suspended ready to vibrate the column of air that the strings/sound board produces. I think the only comment I made to him was that the panel could have been a bit thinner, but more about that later.

In one of my articles I briefly alluded to the double sound board that can occasionally be found in early music keyboard instruments, this might well be a derivative idea from that feature. Most developments in musical instruments over the ages have been aimed at increasing volume because newer instruments that came along had become louder. The softer instruments were being left out of ensembles but stubbornly remained for many years as solo instruments and for vocal accompaniment. This invention aims to improve “tone” so differs from the general run of instrument developments.

The patent.

Giuseppe Virzi was awarded U.S. Patent No.1,412,584 on April 11, 1922. It proposes that one (or more) sound boards could be suspended (supported) inside the body of a stringed instrument. Thought the patent spoke of multiple plates there does not appear to be a “multi plated” instrument extant or possibly even produced. The aim of this patent was to improve the “tone” of the instrument. Having said that the actual patent does not appear to make any claims for improved tone!

Though many of the violin family have quite large bodies and can produce both loud and melodious tones; the violin, mandolin and similar instruments all have small bodies as indeed does the average CBG and as such it could be said that they need “acoustic” help.

Basically these tone plates were “suspended” inside the body of the instrument with the aim of increasing the vibrations inside the box. The design of these tone plates was that they were thin, had “f” holes with thin joining slots and were originally meant to be arched, though in fact those found in instruments have been flat. Additionally it was designed to be supported at its centre rather than the rim.

Do they work?

I really do not know? Siminoff seems to feel it does something positive to the tone. The science of it is persuading, and for a full treatment of this aspect of the patent please read the original article (URL above) Suffice to say by this reporter, that there seems to be reasonable evidence to say that it more than likely works. Having said that, if it was such a great acoustic development, why was it not taken up more widely? (Ah!Patents and copyright!)

Also there are in existence many “testimonials” to its effectiveness, particularly from an Acoustic Engineer named, Lloyd Loar who featured in their catalogue.

So how is it constructed?

In many ways it is a refined example of the one published by Professor Blue. It is about 0.075” thin, it is oval in shape and has the somewhat familial shape of the layout of a violin top (less the curved bouts) It is supported by “bridge-like” wooden legs and cross bar, the feet being about 0.25” thick. See the pictures below.

Conclusions.

You will know by now that I believe the CBG needs all the help it can get “if” what you want from a CBG is good unamplified sounds and a good tone. From my amateur acoustic and design position it seems to me that the Verzi tone plate is a good idea and has more than its share of acoustic attributes to be of some use to us.

Pictures below used with the permission of Roger H. Siminoff.



I hope you have enjoyed this article which really is only aimed at bringing this invention to your notice.