

**To:** James D'Addario

Chief Executive Officer, Chairman of the Board

D'Addario Corporation

Dear Sir:

*Please refer to included book Chance Meetings*

I would like to make an instrument which uses the Chromatic Scale in full. It will have musical and mathematical implications.

In order to do the experiment that I propose, I need to create strings to high accuracy in Unit Weight. You clearly are world leaders in strings. I will need to know your costs.

I have produced the *Bernoulli Involute* with length and pitch using the 12<sup>th</sup> root of 2. I want to do the same with Unit Weight in a new instrument (see p. 41 for the Bernoulli & pages 77-78) for possible new profiles.

I've studied your well-done plant tour. The Die Making process and use produces great accuracy and consistency. I would like to study the musical effects of a true harmonic instrument, by controlling Unit Weight, Pitch, Length. Tension will be of course used. The goal is to eliminate notes that are on pitch, but do not sound right due to possible string selection. The sour note is well known and eliminated by your care and technology, but still creeps in due to poor string selection. See p. 50 and beyond.

P. 50 shows a small 36 string harp and the graphs associated with the instrument.

I do not have or want a monetary interest in this experiment other than possible travel expenses. I would help in a patent submission, but you can do as you see fit with the technology. It should be interesting to explore. I'd like to talk to you via phone at your convenience.

### **My Experience, Acknowledgments and Work Areas**

I have graduate degrees in Mathematics with special reference to Engineering. I've worked in research organizations in the United States and the UK, (Silicon Valley, Cambridge University CAD Centre and General Motors Research). Many wonderful results ensued.

Over the last 20 years I have worked on new and exciting projects as a volunteer. These resulted in the following:

Diamond Jubilee medal from Elizabeth the Queen of England.

A medal from the Governor General of Canada for successful projects.

An award from the Province of Ontario for work I've done.

I was awarded the Canadian Museums Association highest award in 2012.

I have received many awards in other areas of Canada and the United States.

I was the Site Engineer on a famous shipwreck. I worked with well-known archaeologists.

I have worked on a number of successful NASA and NATO projects

I have written a number of books.

I have created large sculptures and murals at Museums.

I've started three small businesses including a CAD/CAM company that was purchased and a hyper-local news agency which serves small communities

I have produced a number of musical concerts in Canada.

**Yours Truly** Michael Sterling

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