EDWARD GABLE, OF BALTIMORE, MARYLAND.

MUSICAL INSTRUMENT AND PROCESS OF TREATING SAME.

SPECIFICATION forming part of Letters Patent No. 688,628, dated December 10, 1901.

Application filed May 17, 1901. Serial No. 60,988. (No specimen.)

To all whom it may concern:

Be it known that I, EDWARD GABLE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Musical Instruments and Processes of Treating the Same; and I do hereby declare the following to be full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to musical instruments having sounding-boards or other resonant parts and to a method or process of treating the same; and among the objects in view is the improvement of the tone and power of such instrument by amplifying and sweetening the sound produced by the vibration of the strings, reeds, &c.

A further object is to produce an economical and simple method or process of treating the sounding-boards or other resonant parts of the musical instrument; and with the above objects in view the invention consists in a musical instrument and a method or process of treating the same, as hereinafter fully described, and set forth in the claims.

In my Letters Patent No. 635,312, dated October 24, 1899, I have described a musical instrument having a resonant part or parts to which a coating of an alkaline silicate has been applied, whereby to improve the tone and power of said instrument.

I have found after experiments that I can obtain as good or practically as good results by the use of an alkali in solution or a combination of alkalies in solution. The alkalies which I preferably use are the ordinary lime or soda and soda, and more and more I find by the use of these alkalies whether alone or in combination I obtain a method or process which is more economical than is possible by the use of an alkaline silicate such as described in my before-mentioned patent.

I have also found that by the use of the alkalies described I effect a saving in time in the treatment of the instrument, and the alkali or alkalies act as a filling medium for the material of the instrument.

In the practice of the present invention I apply to one or both sides, external or internal, of each piece of material used to increase the sound of the musical instrument one or more coats of an alkali, such as lime or soda or a combination of these, which coat or coats will penetrate the resonant parts to which the same are applied. I would state that I preferably use the combination of lime and soda, though I have found that lime alone will produce excellent results. The alkali or alkalies used will thoroughly permeate the parts to which the same is applied and also impart a smooth surface to said parts. After the coat or coats of the solution has been applied, as described, and the same has been allowed to become thoroughly dry or hard I remove the dry or hard coating from the part or parts until a clean smooth surface is left.

The solution is to be applied to any desired part of the whole of the musical instrument, according to its construction and character, the application being made wherever it is desirable to increase the resonance and improve the tone by securing a thorough penetration of the alkali or alkalies into an appropriate part or parts of the instrument.

I would state that the proportions of the alkali or alkalies and the water to form the solution may be varied somewhat, though I have found it to be desirable that the solution should be of a rather thick consistency in order to produce the best results.

What I claim, and desire to secure by Letters Patent, is—

1. A musical instrument having a resonant part or parts, the material of which is thoroughly permeated with an alkali, whereby to improve the tone and power of said instrument.

2. A musical instrument having a resonant part or parts, the material of which is thoroughly permeated with alkalies, such as described, in combination, whereby to improve the tone and power of said instrument.

3. A musical instrument having a resonant part or parts, the material of which is thoroughly permeated with lime and soda in combination, whereby to improve the tone and power of said instrument.
5. The herein-described process of treating a musical instrument having a resonant part or parts, which consists in applying a solution of an alkali to said part or parts, allowing the solution to become dry or hard, and then removing the dry or hard coating, substantially as described.

6. The herein-described process of treating a musical instrument having a resonant part or parts, which consists in applying a solution of lime and soda to said part or parts and allowing the solution to become dry or hard, and then removing the dry or hard coating, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD GABLE.

Witnesses:
J. B. ROMAN,
W. E. BOULTER.