W. COURTENAY.

Sound-Board for Musical Instruments.

No. 197,252. Patented Nov. 20, 1877.

Fig 1

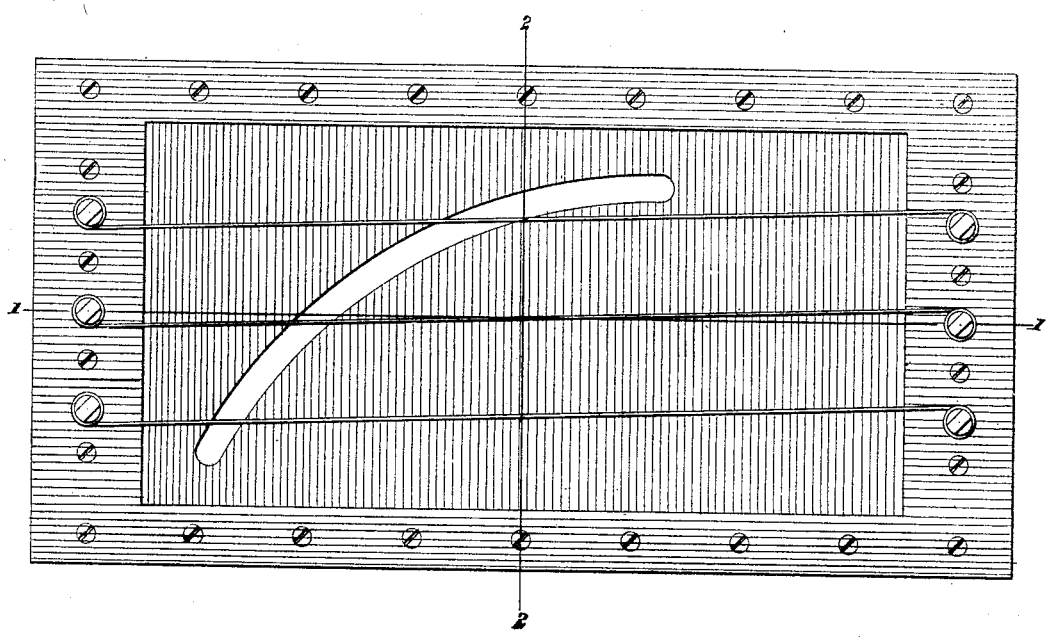


Fig 2

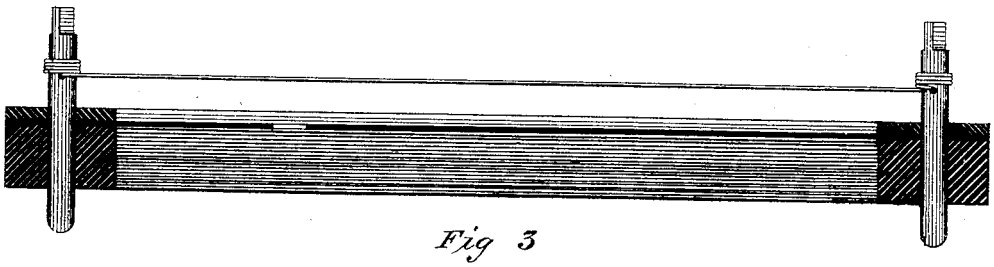
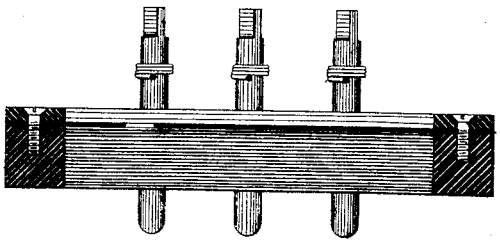


Fig 3



WITNESSES

Wm. A. Skinkle

Geo. W. Breck

INVENTOR

William Courtenay

By his Attorneys

Baldwin, Hopkins & Peyton

UNITED STATES PATENT OFFICE.

WILLIAM COURTENAY, OF NEW YORK, N. Y.

IMPROVEMENT IN SOUND-BOARDS FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **197,252**, dated November 20, 1877; application filed May 18, 1877.

To all whom it may concern:

Be it known that I, WILLIAM COURTENAY, of the city, county, and State of New York, have invented certain new and useful Improvements in Sounding-Boards for Musical Instruments, of which the following is a specification:

The object of my invention is to produce a sounding-board for pianos, violins, or other musical instruments, which shall not be liable to crack, warp, or split, or be affected by changes in the weather, and which will give a sweet, mellow, and uniform volume of sound, which ends I attain by constructing a sounding-board of the substance well known in the art as "vulcanized fiber," which is a preparation of vegetable fiber treated with a solution of chloride of zinc, or its equivalent, as set forth in Letters Patent of the United States No. 113,454, dated April 4, 1871, and No. 120,380, dated October 31, 1871.

The subject-matter claimed will hereinafter specifically be designated.

In the accompanying drawings, Figure 1 represents a plan view of my improved sounding-board; Fig. 2, a vertical longitudinal section therethrough on the line 11 of Fig. 1, and Fig. 3 a similar transverse section on the line 2 2 of Fig. 1.

In making my improved sounding-boards, I take a sheet of vulcanized fiber of the requisite thickness, moisten it thoroughly with water, and stretch it over a suitable frame, securing it thereto by tacks, rivets, clamps, or other suitable fastenings. The sheet is then allowed to dry, its shrinkage in drying making it very tight upon its frame, and enabling it to give forth a deep mellow tone when struck.

The thickness of different parts of the sounding-board may be varied by pressure between dies before straining, or by scraping it afterward. The frame is then secured in the instrument in the usual well-known ways.

The frame upon which the sounding-board is stretched may be of wood, iron, or other well-known material; but I prefer to use a frame formed of vulcanized fiber in well-known ways, as such a frame is not liable to shrink, warp, or crack, or be affected by changes in the weather.

The same material can be applied to the manufacture of the sounding-boards or bodies of violins and other similar instruments, by moistening, stretching, and drying the sheets of vulcanized fiber upon or between suitable molds, and then fastening the parts together as is done in ordinary violins.

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

1. As a new article of manufacture, a sounding-board for pianos or other musical instruments, composed of vulcanized fiber stretched or molded into form, substantially as and for the purpose set forth.

2. The combination of a sounding-board for pianos or other musical instruments, composed of vulcanized fiber stretched or molded into form, as specified, with the frame upon which it is mounted.

In testimony whereof I have hereunto subscribed my name.

W. COURTENAY.

Witnesses:

FRANCIS P. BURKE,

GEO. WAGNER.