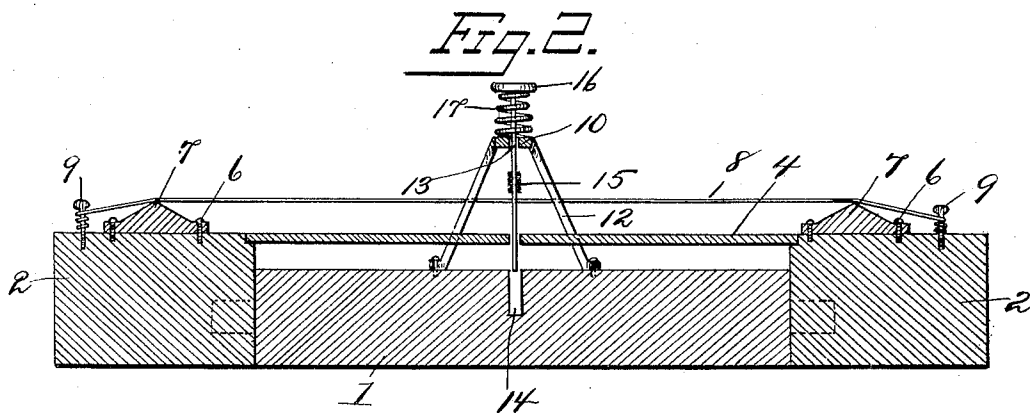
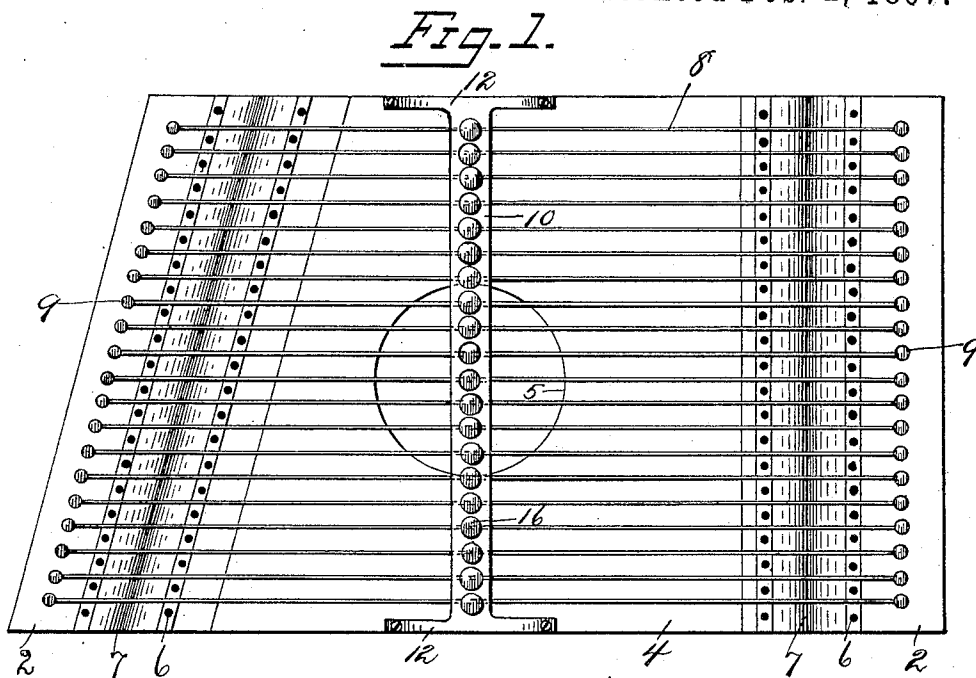


(No Model.)

J. C. GRAHAM, Jr.
MUSICAL INSTRUMENT.

No. 576,402.

Patented Feb. 2, 1897.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN C. GRAHAM, JR., OF NEW YORK, N. Y.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 576,402, dated February 2, 1897.

Application filed October 27, 1896. Serial No. 610,218. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. GRAHAM, Jr., a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Musical Instruments; and I do declare the following to be a 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to musical instruments somewhat resembling citherns in appearance; and its object is to provide the same with a keyboard containing a number of keys, one for each string, which when struck and depressed will strike the strings and produce a musical note and will be returned to normal position by coiled springs.

The invention consists in the novel construction and arrangement of parts herein-
after fully described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a musical instrument constructed in accordance with my invention, and Fig. 2 is a longitudinal section taken near the lower end of Fig. 1.

In the said drawings the reference-numeral 1 designates a flat solid board having one end beveled and the other end straight, provided at such ends with end pieces 2 2, one of which is beveled to correspond with the beveled end of the said board 1. These end pieces project up above the said board 1 and are secured thereto by a tongue-and-groove joint. Secured to the upper ends or sides of said end pieces is a sounding-board 4 of thin veneer, provided with a central opening 5. Also secured to said end pieces by means of screws 6 are bridges 7, beveled on the upper sides, forming a central ridge extending from end to end thereof.

The numeral 8 designates the strings which are strung across the bridges and are located above the sound-board. The ends of the strings are secured to pins 9, connected with the end pieces.

The numeral 10 designates a keyboard extending transversely across the instrument above the strings and is attached to brackets 12, secured to the board 1. This keyboard is provided with a number of holes in which are located vertical keys 13, the lower ends of which project into a transverse guide-slot 14 in board 1. They also pass through corresponding holes in the sound-board, and intermediate their ends are provided with brushes or felts 15, which are adapted to strike the strings when the keys are depressed. At the upper ends of the keys are heads or buttons 16, and between the same and the keyboard are coiled springs 17, the tendency of which is to press the keys upwardly.

The operation will be readily understood. When the keys are depressed, the brushes or felts will strike the strings and produce a musical note, somewhat after the manner of a pianoforte. When the keys are released, the coiled springs will return them to normal position.

I do not limit myself to any particular number of strings, nor to their arrangement and manner of stringing the same, and while I prefer the general construction shown, which, as before stated, resembles a cithern, I do not wish to confine myself thereto.

Having thus fully described my invention, what I claim is—

In a stringed musical instrument, the combination with the board having transverse guide-slots, the end pieces secured thereto and projecting above the same, the sound-board, the bridges and the strings, of the keyboard located above the strings, the headed keys passing therethrough and through the sound-board and projecting into said guide-slots, the brushes or felts secured to said keys intermediate their ends, and the coiled springs interposed between the heads of the keys and the keyboard, substantially as described.

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

JOHN C. GRAHAM, JR.

Witnesses:

FREDK. G. FISCHER,
EDWARD C. TUCKER.