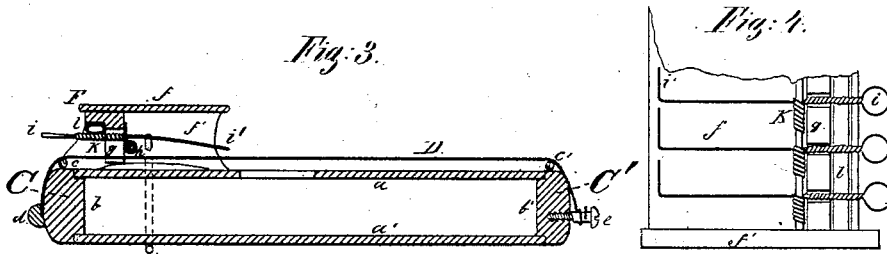
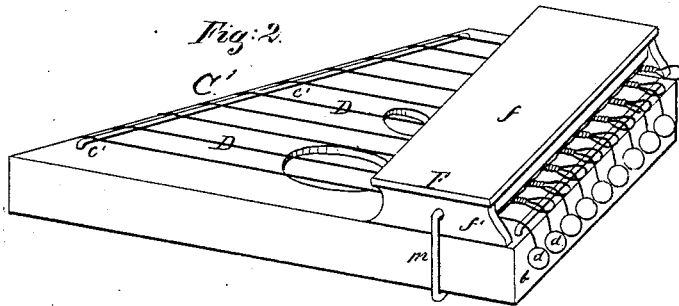
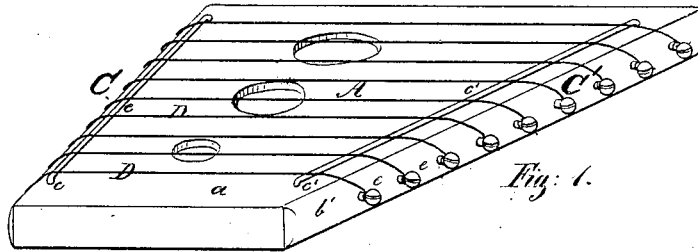


L. ANDERSON.
Toy Musical Instrument.

No. 200,964.

Patented March 5, 1878.



Witnesses
S. H. Gales
F. D. Thompson

Inventor.
Lauritz Anderson
by Geo. W. Dyer & Co
Atty

UNITED STATES PATENT OFFICE.

LAURITZ ANDERSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN TOY MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **200,964**, dated March 5, 1878; application filed August 7, 1877.

To all whom it may concern:

Be it known that I, LAURITZ ANDERSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Toy Musical Instrument, to be known by the name of "Centennial Harp," and of which the following is a full and exact description.

The nature of my invention relates to a string-instrument to be played either by the fingers, like a harp, or by a key and hammer attachment, like a piano, and which is particularly designed to be a toy for children.

The invention consists in the combination, with the toy string-instrument, of a frame carrying spring-hammers and keys adapted to be removably attached thereto; and, further, in the means for securing said frame to the string-instrument, and in the construction of the keys and hammers and connecting parts carried by such frame.

In the drawing, Figure 1 is a perspective view of the string-instrument. Fig. 2 is a similar view of the same with the key and hammer attachment. Fig. 3 is a longitudinal section of the latter, and Fig. 4 is a bottom view of part of the key and hammer attachment.

A is a shallow chamber or wooden case, being the resonant portion of the instrument. It is composed of two thin boards, *a* and *a'*, of a trapezoid shape, placed an equal distance apart, and united on their edges by a frame between, one end, *b*, of which is right-angular with the parallel sides of the trapezoid, while its opposite end, *b'*, is beveled, so that it will accommodate the scale of strings, which are stretched over said chamber. The board *a* is pierced with a series of circular holes. The ends *b* and *b'* of the frame are made of hard wood, and are rounded off on their outward faces; and upon the top of these end piece are placed wires *c* and *c'*, the ends of which are bent angularly, and are inserted into the wood. These wires form the bridges upon which the strings rest. *D D* are the strings, of brass wire, which are secured at one end to the edge *b* of the chamber A by brass-headed tacks *d*, while their opposite ends are passed through holes in the shanks of half-round headed wood-screws *e*, which are screwed into the bevel-end edge *b'* of said chamber, and upon which the wire is wound in stretching and tuning the same.

The key and hammer attachment is arranged within a frame, F, consisting of a board, *f*, to the ends of which are rectangularly secured two end boards, *f'*, and which is stiffened by a slotted rib, *g*, longitudinally fastened to the bottom of the same, with its ends abutting against the end boards *f'*. Parallel with rib *g*, and in close proximity therewith, is placed rod *h*, the ends of which are secured into the end boards *f'*. The keys and hammers *i* and *i'* are bent of a single piece of wire each, the loop-shaped end *i* forming the key, and the opposite rectangularly-bent end *i'* being the hammer. This is attached to the rod *h* by spring K, consisting of a piece of wire, which is spirally wound at one end upon the shank of key *i*, and the rest upon the rod *h*, having its extreme end leaning against the rib *g*. These keys are placed each into a slot of rib *g*, wherein they are guided. A piece of rubber hose, *l*, or other suitable elastic material, is fastened to the rib *g*, which forms the cushion for making the rebound of the keys noiseless. The frame F has two wire hooks, *m*, pivoted into the end boards *f'*, which, for attaching it to the chamber A, will grasp the sides of the same.

The above-described attachment is so adjusted that when the depressed key is released the hammer end is thrown down against the string, and then retracted sufficiently for allowing the string to vibrate. The several strings are named by figures, from 1 upward, which may be marked upon end *b'* of chamber A, and the corresponding keys of the attachment can likewise be named by figures marked upon board *f*, so that the succession in which the several strings are sounded can be prescribed to the pupil musician by simple figures instead of notes, thereby simplifying his study.

This toy instrument is so constructed that it can be manufactured very cheaply. It is strong and durable, and has a harmonious sound; therefore it is delightful for children without becoming a nuisance to adults. It can be readily tuned by the use of a common screw-driver.

What I claim as my invention is—

1. The combination, with the case A of a toy string musical instrument, of a frame carrying spring hammers and keys adapted to be re-

movably attached to the said case, substantially as and for the purposes set forth.

2. In a toy musical instrument, the combination, with the case A, of the frame F, having hooks *m*, for removably securing it to the said case, substantially as and for the purposes set forth.

3. In a toy musical instrument, the combi-

nation, with the frame F, of the spring keys and hammers *i'*, bridge *g*, rod *h*, and cushion *l*, constructed and arranged substantially as described and shown.

LAURITZ ANDERSON.

Witnesses:

WM. H. LOTZ,

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