No. 653,550 Patented July 10, 1900.

E. EULERT & A. WALLENSTEIN.

STRINGED MUSICAL INSTRUMENT.

(Application filed Oct. 14, 1899.)

(No Model.) 2 Sheets—Sheet 1.

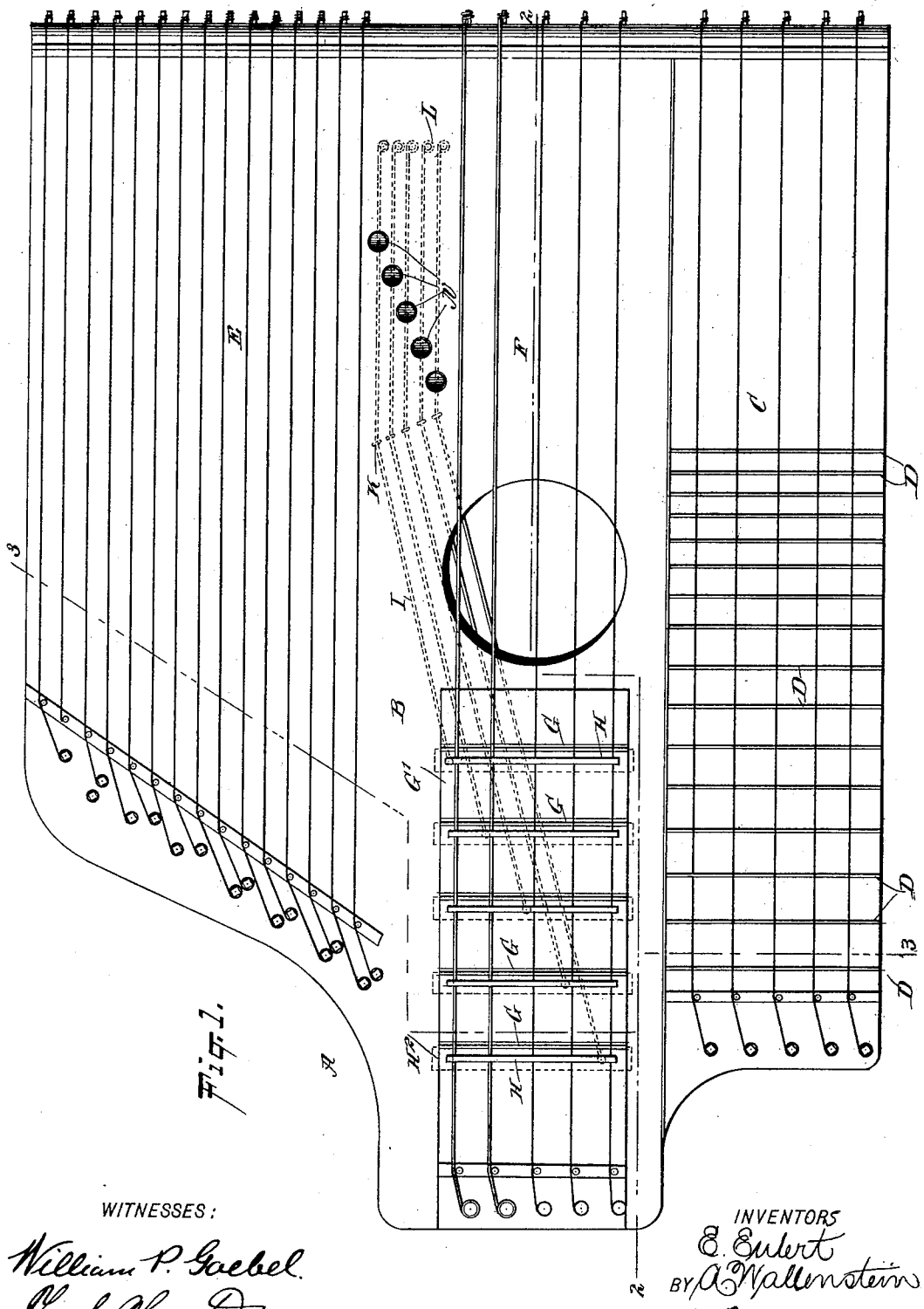


Fig. 1.

WITNESSES:

William P. Goebel.

Rud. J. Hoschek.

INVENTORS

E. Eulert

BY A. Wallenstein

Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 653,550. Patented July 10, 1900.

E. EULERT & A. WALLENSTEIN.

STRINGED MUSICAL INSTRUMENT.

(Application filed Oct. 11, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 2.

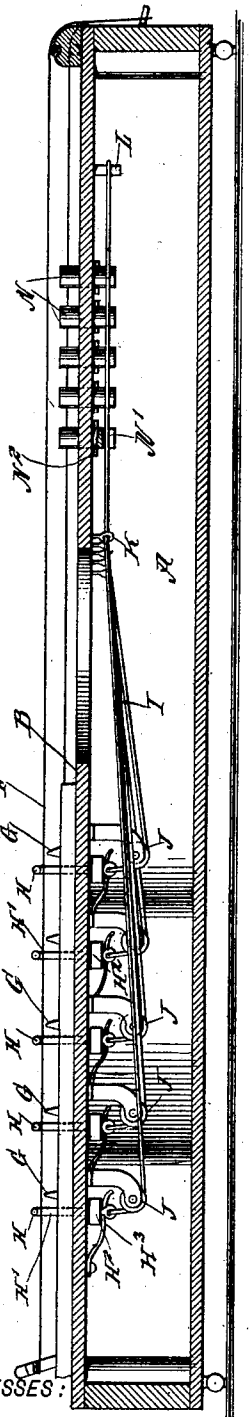


Fig. 3.

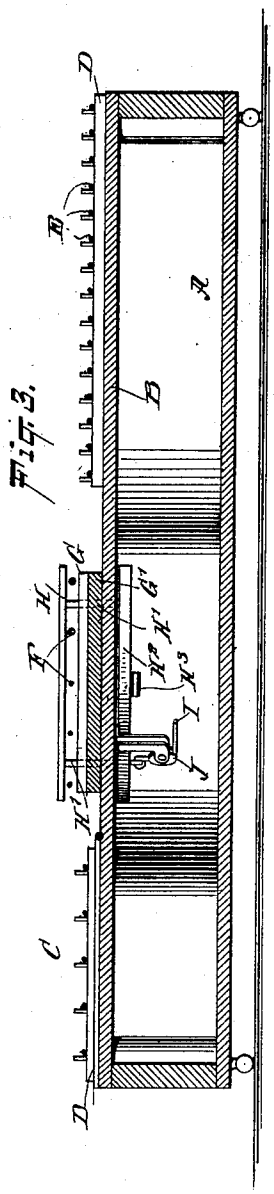
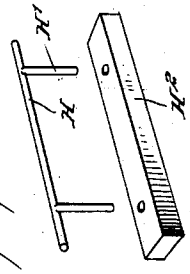


Fig. 4.



WITNESSES:

William P. Goebel.

Fred. J. Kosterlitz

INVENTORS

E. Eulert

BY A. Wallenstein

Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ERNST EULERT AND ADOLF WALLENSTEIN, OF NEW YORK, N. Y.

STRINGED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 653,550, dated July 10, 1900.

Application filed October 11, 1899. Serial No. 733,239. (No model.)

To all whom it may concern:

Be it known that we, ERNST EULERT and ADOLF WALLENSTEIN, of the city of New York, borough of Manhattan, in the county and State of New York, have invented certain new and useful Improvements in Stringed Musical Instruments, of which the following is a full, clear, and exact description.

The invention relates to citherns and like instruments; and its object is to provide a new and improved stringed musical instrument arranged to enable the performer to conveniently and accurately play the desired accompaniment to the melody and to allow of playing the melody on either the usual leading cithern-strings or on an open scale of strings.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of our invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement. Fig. 2 is a longitudinal sectional side elevation of the same on the line 2 2 in Fig. 1. Fig. 3 is a transverse section of the same on the line 3 3 in Fig. 1, and Fig. 4 is a perspective view of one of the movable pitch-changing bars.

The improved musical instrument is provided with a body A, having a sounding-board B, over the front portion of which is stretched the usual leading cithern-strings C, extending over frets D, for permitting the performer to readily play the melody with the fingers and change the pitch of the strings by fingering in the usual manner. Above the sounding-board B, next to the leading strings C, is stretched a group of accompaniment-strings F, and an open scale of strings E is arranged over the sounding-board B at the rear portion thereof, so that the accompaniment-strings F are located between the usual leading strings C and the open scale of strings E.

The group of accompaniment-strings F are preferably tuned to the notes F, A, C, F, A for sounding harmonic chords, and the said strings extend over frets G, spaced a suitable distance apart, pitch-changing bars H being over the strings F, adjacent to the frets G, so that when either of the pitch-changing bars H is depressed it simultaneously engages all the strings F and moves them down upon the corresponding fret G. Thus by moving either of the pitch-changing bars H in a downward direction the pitch of all the strings F is simultaneously changed, and consequently different chords are produced when the strings F are played.

Each of the bars H is provided with downwardly-extending guide-pins H′, fitted to slide in suitable bearings in the fret-board G′ and the sounding-board B, and the lower ends of said guide-pins are attached to a transverse bar H^2, normally resting against the under side of the sounding-board B and held in this position by a suitable spring H^3, and when in this position the corresponding bar H is above the strings F. (See Fig. 3.) The bars H^2 are connected with one end of ropes or cords I, extending under pulleys J, journaled on the under side of the sounding-board, the cords I then passing through eyes K, the other ends of the cords being secured to pins L, attached to the sounding-board B or other part of the body A. Each of the cords I extends in a notch N′ of a button N, mounted to slide vertically in the sounding-board and extending with its upper end above the top of the sounding-board between the strings E and F, as is plainly shown in Fig. 1, so that either of said buttons can be conveniently pressed by the performer to cause the corresponding string or cord I to pull on the bar H^2 to move the same in a downward direction and with it the pitch-changing bar H to move the strings F down on the corresponding fret G for the purpose already mentioned. When the performer releases the pressed button N, then the spring H^3 at once returns the bars H^2 and H back into an uppermost position, so that the bar H releases the strings F. During the return movement of the bar H′ the corresponding string or cord I and with it the button N are moved back to their normal positions, the upward sliding movement of the button being limited by a pin N^2 engaging the under side of the sounding-board B.

From the foregoing it is evident that the performer can play the melody on either the

leading cithern-strings C or the open scale of strings E and the accompaniment or harmonic chords on the strings F, the pitch of which can be readily changed by the performer pressing with one finger the corresponding button N. If desired, the performer can play with one hand the melody on the open scale of strings E and the accompaniment on the strings F by pressing the buttons N to change the pitch of the strings F and produce the desired chord. If desired, two performers can play on the instrument, both executing the melody on the strings C and E, and one, in addition, playing the accompaniment-strings F.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a stringed musical instrument, melody-strings, a group of accompaniment-strings extending over frets, a plurality of independent movable pitch-changing bars extending transversely over the accompaniment-strings, and arranged between adjacent frets, and individual means, substantially as described, to press each of the bars and move the same in engagement with the accompaniment-strings, to press them upon the corresponding fret, said means comprising vertically-slidable buttons, and a connection between the buttons and said pitch-changing bars, said buttons extending through and above the sounding-board, as set forth.

2. A musical instrument having frets, strings extending over them, movable pitch-changing bars arranged between the frets, buttons movable in the body of the instrument, a cord connecting each button with one of the pitch-changing bars, and a spring for throwing each of said bars into an inactive position.

ERNST EULERT.
ADOLF WALLENSTEIN.

Witnesses:
THEO. G. HOSTER,
EVERARD BOLTON MARSHALL.