

N<sup>o</sup> 4388



A. D. 1894

Date of Application, 1st Mar., 1894

Complete Specification Left, 29th Nov., 1894—Accepted, 9th Feb., 1895

PROVISIONAL SPECIFICATION.

Improvements relating to Guitars and similar Stringed Instruments,  
and Indicators for Playing the same.

I, HERMANN LINDEMANN of Klingenthal in Silesia, Germany, Merchant do hereby declare the nature of this invention to be as follows:—

The object of this invention is to provide that class of musical stringed instruments such as guitars, mandolines, banjos and the like which are usually played by stopping the strings upon a finger board, with fixed stopping devices which may be brought into action to stop any string or group or series of strings so as to dispense with the usual direct finger stopping of each string and with the finger board with its frets, marks, or other adjuncts heretofore necessary.

For this purpose I place across the strings, bars above or below the strings movable to or from the strings and provided with dampers to damp the particular string or strings desired to be damped so that the sounding of the remainder of the strings may produce a harmonious or other chord as desired and according to the particular damper bar set in operation.

The bars may cross the strings at the neck or the body of the instrument and may be pivoted at one end so that the depression of the other end brings the dampers in contact with the strings, or they may be supported by springs at both ends and guided on pins, or in grooves inclined or otherwise to be slid down onto said strings, or up beneath them when a lever bearing on or under the middle of the bar is rocked on its fulcrum by depression of a key on or connected with its end, or the damper bars may be pivoted or hinged to rotate about an axis parallel to the length of each and depressed by keys or pistons and upheld by springs, or the damper bars may slide in the direction of their length and bring the dampers laterally against the strings.

These devices permit the aforesaid class of instruments to be played from a music sheet placed under the strings and by which the strings to be sounded are indicated by signs placed under the respective strings, these signs being preferably numbers the sequence of which indicates the sequence in which the strings are to be sounded. Strips or books may be used instead of single sheets.

Dated this 1st day of March 1894.

R. HADDAN.

COMPLETE SPECIFICATION.

Improvements relating to Guitars and similar Stringed Instruments,  
and Indicators for Playing the same.

I, HERMANN LINDEMANN, of Klingenthal, in Silesia, Germany, Merchant, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

The object of this invention is to provide that class of musical stringed instruments such as guitars, mandolines, banjos and the like which are usually played by stopping the strings upon a finger board, with fixed stopping devices which may be brought

[Price 8d.]

*Lindemann's Improvements relating to Guitars and similar Stringed Instruments, &c.*

into action to stop any string or group or series of strings so as to dispense with the usual direct finger stopping of each string and with the finger board with its frets, marks, or other adjuncts heretofore necessary.

For this purpose I place bars across the strings, above or below the strings, movable to or from the strings and provided with dampers to damp the particular string or strings desired to be damped, so that the sounding of the remainder of the strings may produce a harmonious or other chord as desired and according to the particular damper bar set in operation. 5

The bars may cross the strings at the neck or the body of the instrument and may be pivoted at one end so that the depression of the other end brings the dampers in contact with the strings, or they may be supported by springs at both ends and guided on pins or in grooves inclined or otherwise to be slid down onto said strings, or up beneath them when a lever bearing on or under the middle of the bar is rocked on its fulcrum by depression of a key on or connected with its end, or the damper bars may be pivoted or hinged to rotate about an axis parallel to the length of each and depressed by keys or pistons and upheld by springs or the damper bars may slide in the direction of their length and bring the dampers laterally against the strings. 10 15

These devices permit the aforesaid class of instruments to be played from a music sheet placed under the strings and by which the strings to be sounded are indicated by signs placed under the respective strings, these signs being preferably numbers the sequence of which indicates the sequence in which the strings are to be sounded, or bars depressed. Strips or books may be used instead of single sheets. 20

Figures 1 and 2 of the annexed drawing represent this instrument in two views with damping-bar *a* arranged across the strings *s*<sup>1</sup> upon the body *g* of the instrument. 25

Fig. 3 shows a cross sectional view on the line A-A of Fig. 1.

Figs. 4 and 11 represent the arrangement of the damping device *a* in two different constructions, provided on the neck *s* instead of being arranged on the body *g* of the instrument, and Fig. 5 shows said device bridged over the strings of the instrument; this device clearing always only such strings as produce a harmonious chord, on striking across the whole of the strings. 30

Figures 6, 7, 8 and 10 represent cross sectional views and Fig. 9 is a partial longitudinal section of the instrument each provided with a different form of construction of the damping device *a* in order to show that any desired form of this damping device may be applied. 35

In those various forms of construction of this damping-device, shown in Figs. 3; 6, 7 and 9, the damping-bar *a* is held in lifted position above the strings by means of springs *c* while the damping of the different strings is in Fig. 3 effected by a direct pressure exerted upon the bar *a*, turning on the pivot *i*, this pressure being transmitted to the strings in Fig. 6 by pressing the bars *a* vertically down upon the strings by the medium of the lever *z* and in Fig. 7 by pressing them diagonally downward upon the strings by the same means whilst in Fig. 9 the bars *a* are arranged eccentrically on pivots *i*<sup>1</sup> and are pressed against the strings *s*<sup>1</sup> by turning said bars on their pivots *i*<sup>1</sup> by means of the keys or pistons *r*. 40 45

In the device shown in Fig. 8 the damping bar *a* is held away from the strings by means of springs *c*<sup>1</sup> and is arranged beneath said strings. In order to produce the damping, a key *o* in connection with a double armed lever *z*<sup>2</sup> pivoted at *u*, is pressed down thus raising the damping bars from below. In Fig. 11 which represents a cross section of the neck *s* of the instrument in connection with another form of construction of this device, the damping bar *a* is held away beneath the strings by means of springs *c*<sup>2</sup>, damping being here effected by the medium of the keys *o* in connection with the rods *x* passing through the neck *s* and forcing the damping-bars from beneath against the strings. 50 55

In the arrangement shown in Fig. 10 the bars *a* are provided with fingers, projecting between the strings. The springs *c*<sup>2</sup> hold the bars so that these fingers

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are not in contact with the strings. In order to produce a damping, the bar is pushed inward in direction of the arrow.

As a guide to the playing of pieces of music, sheets of music, printed either with notes, or signs replacing notes, are used at will and removably arranged beneath  
5 the strings or over the same.

The notes or signs respectively are for this purpose distributed in series, placed above one another according to the scale of the tones or the sequence of the tones of the instrument, so that on using the sheets of music in correct position beneath the strings, as the music sheet *f* in Fig. 1 indicates, each note or sign  
10 respectively presents itself beneath that string which corresponds to said note or sign.

Sheets of music to be placed above the strings may be either arranged upright or in a parallel plane with the strings. In the former case the sheets of music must be arranged above the strings in such a way that the notes or signs  
15 present themselves in series in the same manner as those arranged beneath the strings, while in the latter case by means of perforation of the music sheet, similar to the arrangement shown at *v* in Fig. 5, only those strings are left free which produce the tones of the melody to be played, so that the strings are to be struck in the indicated sequence of the holes in the sheets of the music and through said  
20 holes.

Instead of using sheets of music strips or books of music may be similarly applied.

On the instrument of this invention a number of strings is arranged in such a manner that any melody can be played without using a finger board and by  
25 using music sheets as before described melodies can be played by unskilled persons.

Owing to the arrangement that on striking across the whole of the strings a harmonious chord is always given, any tune may be accompanied on this instrument even by unskilled persons and as the instrument can be played when carried along  
30 or without a support it is very suitable for out-door use.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed I declare that what I claim is—

1. An instrument comprising a neck *s* and body *g* of a form resembling a guitar,  
35 banjo, mandoline or other similar instrument, said instrument having a suitable number of strings *s*<sup>1</sup> and damping devices adapted to be brought in contact with certain of said strings in such a manner that harmonious chords may be produced by striking the whole of said strings.

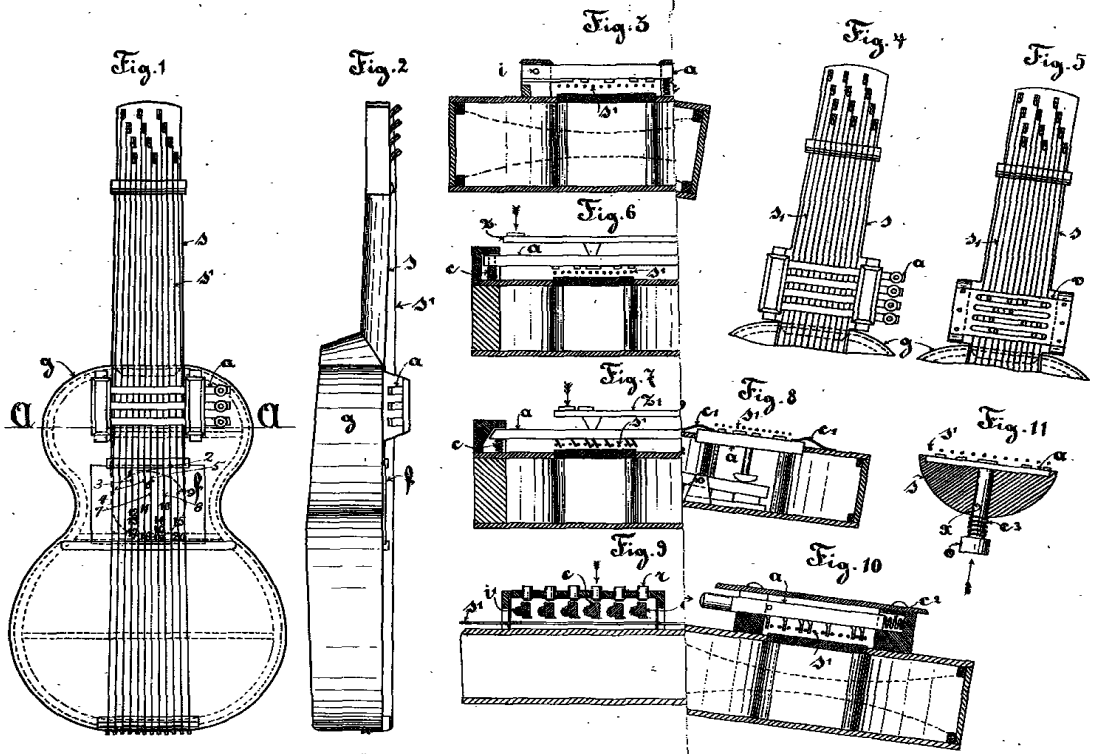
2. The construction of dampers with their operating devices substantially as  
40 described and illustrated.

Dated this 29th day of November 1894.

R. HADDAN,

Of the Firm of Herbert Haddan & Co.,

18, Buckingham Street, Strand, London, W.C., Agent for Applicant.



[This Drawing is a reproduction of the Original on a reduced scale.]

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Fig. 1

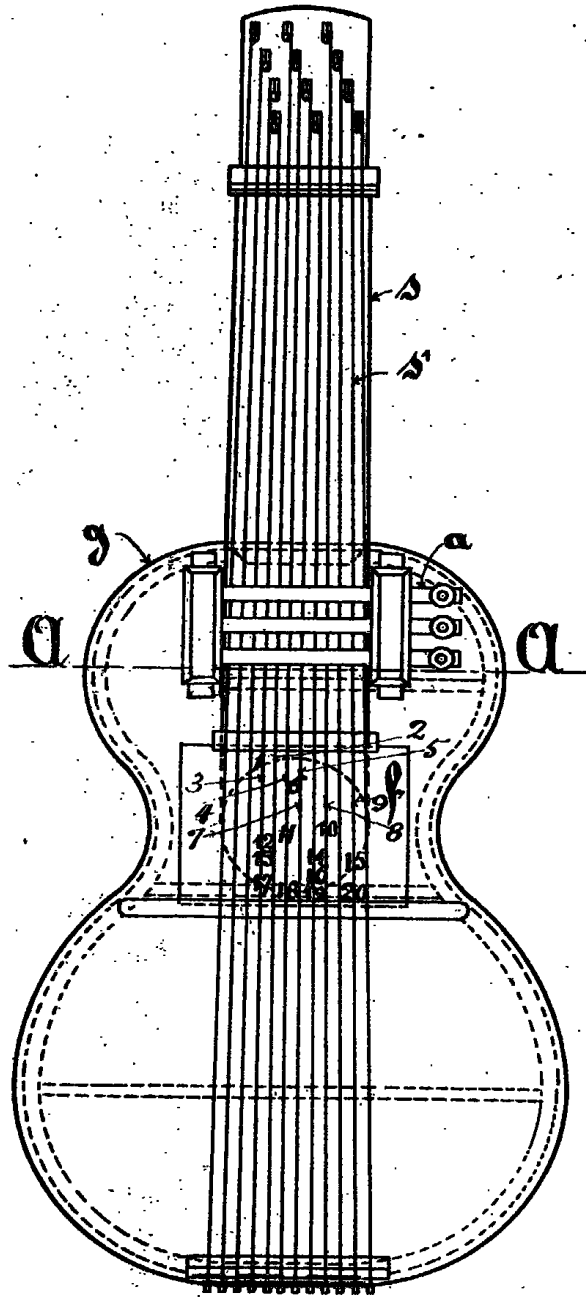


Fig. 2

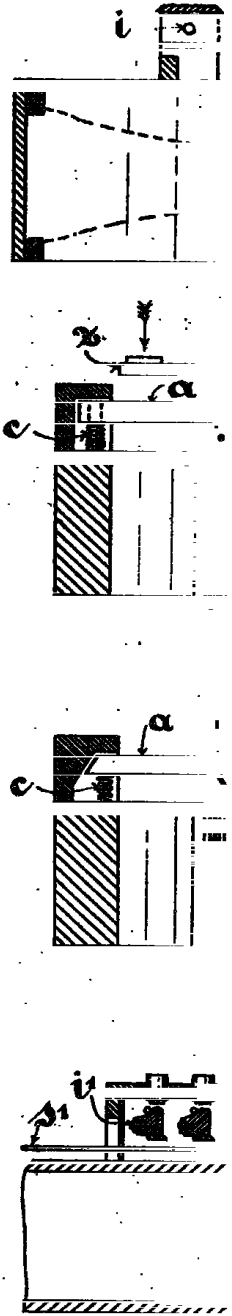
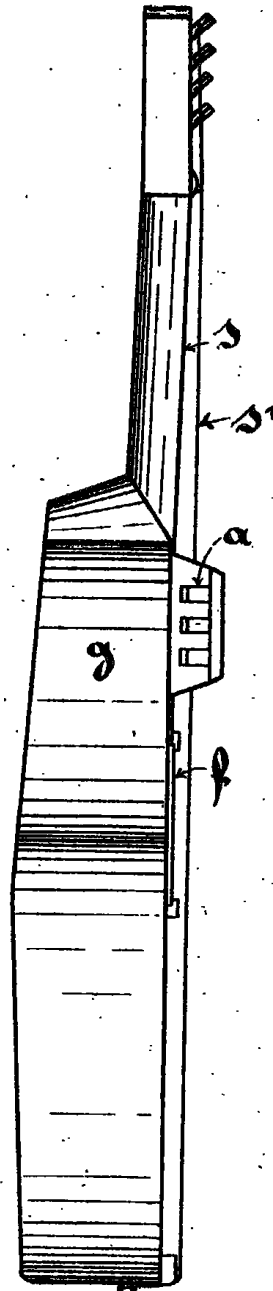


Fig. 3

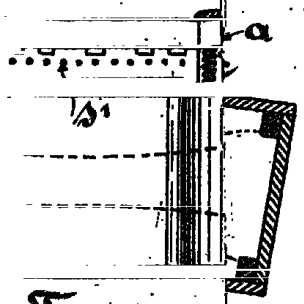


Fig. 6

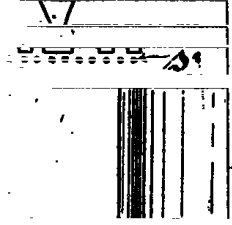


Fig. 7

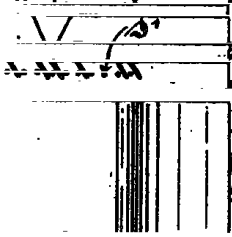


Fig. 9

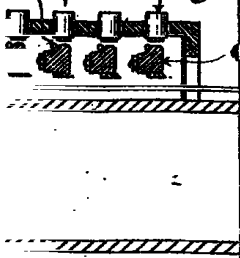


Fig. 4

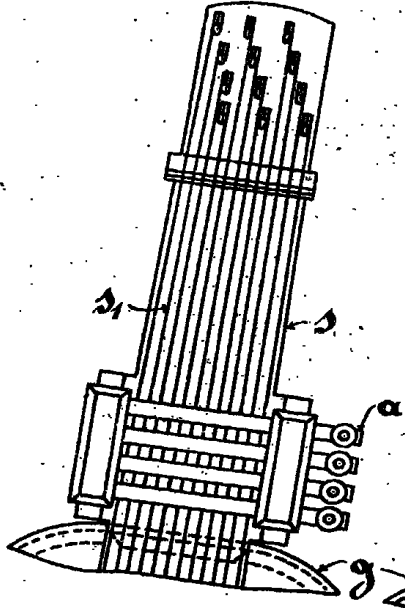


Fig. 5

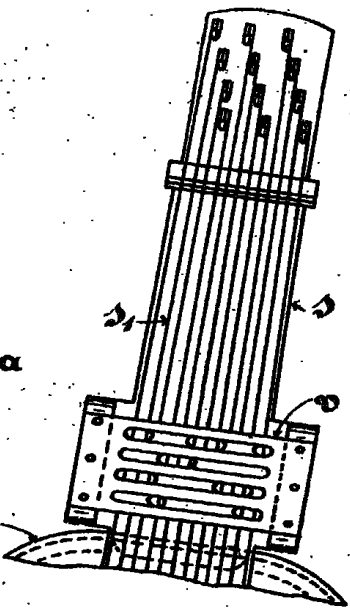


Fig. 8

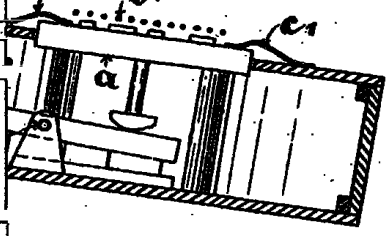


Fig. 11

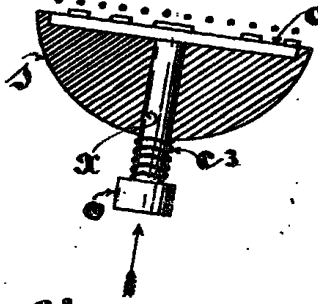
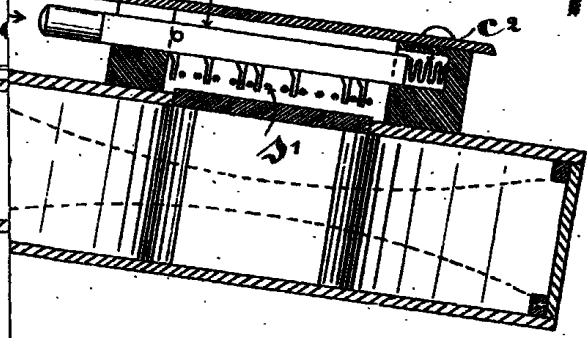


Fig. 10



[This Drawing is a reproduction of the Original on a reduced scale.]