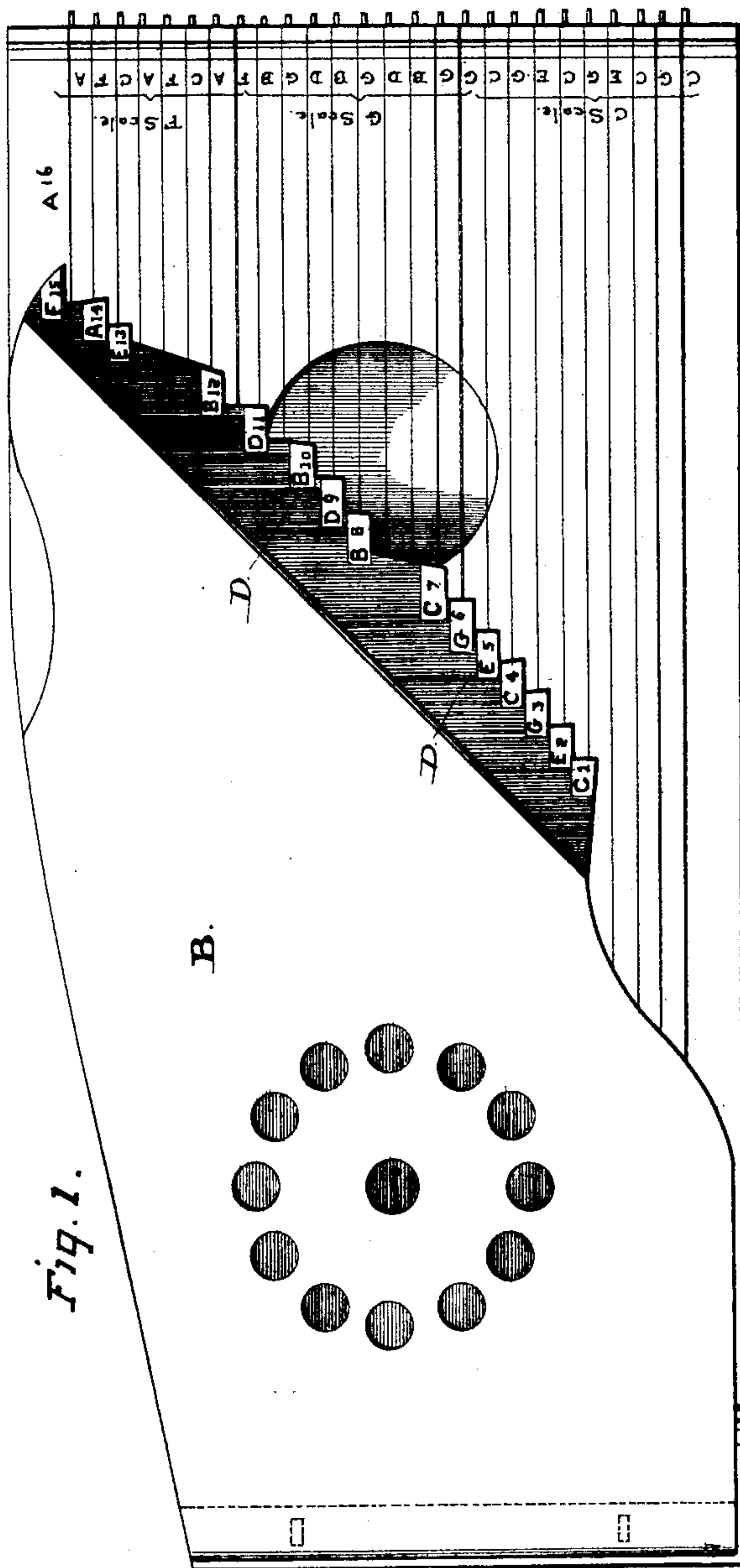
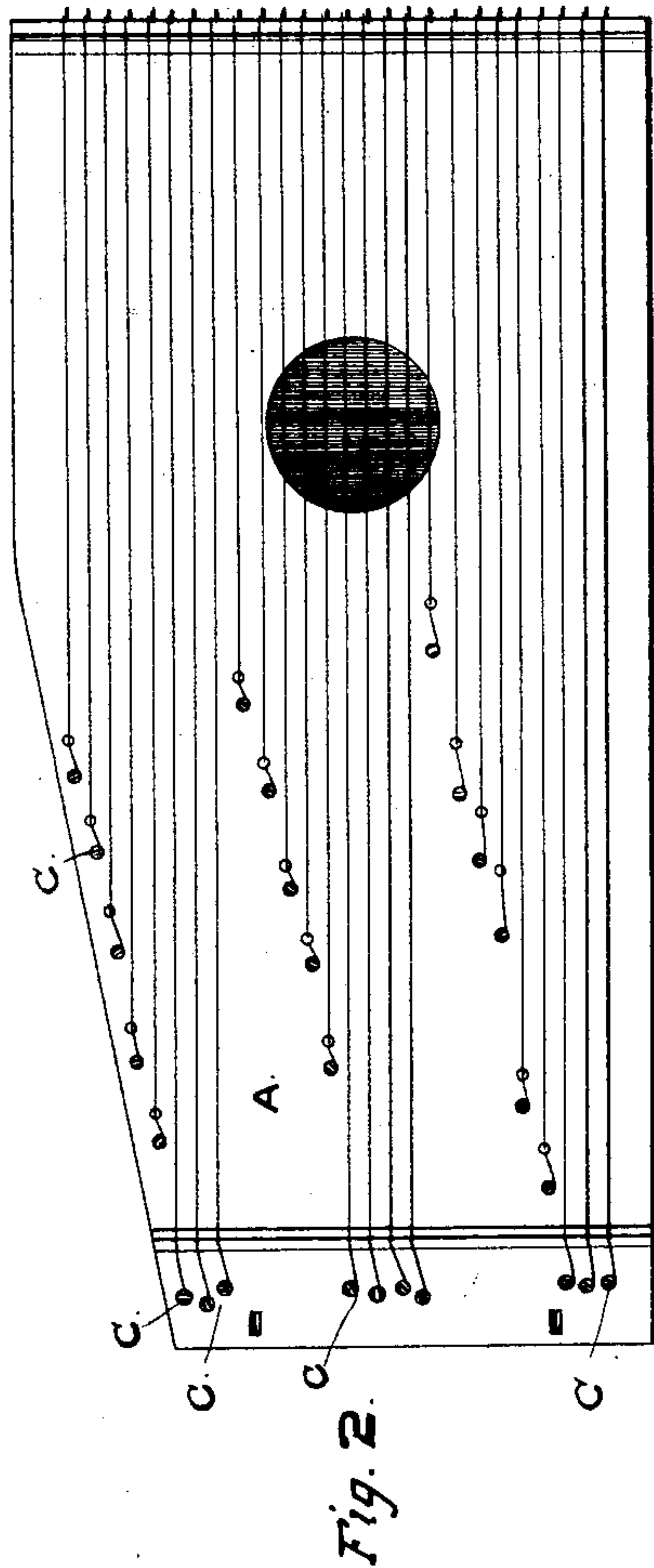


(No Model.)

W. J. CHRISTY.
STRINGED MUSICAL INSTRUMENT.

No. 483,136.

Patented Sept. 27, 1892.



Witnesses:

Wm. Franklin.

M. Rogers.

Inventor:

William J. Christy.

By Smith & Brown, Attys.

UNITED STATES PATENT OFFICE.

WILLIAM J. CHRISTY, OF SAN JOSÉ, CALIFORNIA.

STRINGED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 483,136, dated September 27, 1892.

Application filed March 18, 1892. Serial No. 425,415. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. CHRISTY, a citizen of the United States, residing in San José, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Stringed Musical Instruments, of which the following is a specification.

My invention relates to improvements in stringed musical instruments of the kind or description which are played with the fingers, like harps. It includes a novel finger stop or guide for playing chords and in combination therewith certain novel arrangements of scales, as hereinafter fully described, producing an improved musical instrument of the class or character before mentioned, to which I have given the name of "auto harp."

These improvements and the manner in which I construct, produce, and apply them are explained in the following description and illustrated in the drawings that accompany and form part of this specification.

Figure 1 of the said drawings is a top view of a harp constructed according to my invention and containing all my improvements in this class of instruments. Fig. 2 is a plan or top view on a reduced scale with the top board removed.

A is the body of the instrument, B the top board that forms a cover over a portion of the bed or sounding-board in this class of instrument, and C C are the tuning-pins.

The body A is hollow and is otherwise of the usual construction. The top board is attached by one end to the body by slip-hinges or by hooks or similar fastenings, so that it can readily be turned up or detached altogether for tuning. On one end of the top board the finger-stops D are formed by cutting the board on a diagonal line and notching or cutting into the edge, as shown in Fig. 1. In some cases it is desirable to make the stops on a separate piece, and in that way they can be applied to instruments already in use; but the most convenient way is to form or fix them directly on the edge of the top board, as I have shown in the drawings. The edge of each stop is cut on a line parallel with the strings and is of suitable width to present proper extent of face for the finger of the player. Each stop is set just back of

the last string of those composing the chord which the stop controls, and each stop is thrown out beyond the stop below it, so that the whole set or number of stops extend diagonally and in steps across the sounding-board.

The instrument is strung in three scales, in the manner shown in Fig. 2, and the scales are arranged as follows: the "C" scale of nine notes—namely, C G C E G C E G C—at the bottom side, the "G" scale of nine notes—G G B D G B D G B—in the middle, and the "F" scale of eight notes—F A C F A C F A—at the top of the sounding-board. The stops over the "C" scale are marked C' E² G³ C⁴ E⁵ G⁶, and following these are three stops B⁸ D⁹ B¹⁰ D¹¹ over the "G" scale and the stops B¹² E¹³ A¹⁴ F¹⁵ over the "F" scale.

In this manner the stops are numbered consecutively and are also marked with the names or letters of the chords for the guidance of the player, and therefore with these numbered stops and the music specially written for the instrument the playing can be done mechanically without much knowledge of music on the part of the performer. On these groups of strings different chords are produced by using the stops in the order designated by their marks or numbers in the piece of music, and in that operation the finger of the player is placed just below the first or lowest string of the group to which the first-designated stop belongs, so that the finger is directly in line with that stop, and then all the strings are touched by moving the finger forward until it is arrested by the stop. In like manner the next stop designated in the music is used, and so on until the piece is finished, all the strings below each stop in the group to which the stop belongs being sounded by the player by the stroke of the finger from the first or lowest string of the group up to the stop. The stops are used in this manner in the order indicated in the music in which they are noted by the numerals marked on them, and in playing all those numbered from "1" to "7" the finger starts always from the lowest string of the group over which the stops "1" to "7" are located, and so on for all the remaining stops, the finger starting to sweep the strings always from the first string of the group. This

mode of arranging and using the stops to produce chords will be seen to differ from the mode of forming chords in other instruments of the kind where some strings in the path of the finger are held down or silenced.

From the foregoing description any person familiar with the construction and tuning of this class of instruments will be able to make and apply my said improvements.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a musical instrument of the kind herein described, the finger stops or guides over the strings in diagonal line and stepped order, adapted to present obstructions above the level of the strings for the finger of the player, substantially as described.

2. In a musical instrument of the kind herein described, the stationary diagonal bar

D, having the stops or finger-guides D D formed on the edge thereof in stepped order to present edges substantially parallel with the strings over which they set, in combination with strings tuned in groups to the intervals of the common chords, substantially as described.

3. The herein-described stringed musical instrument, consisting of the body A, top board B, having finger-stops D D, set diagonally across the sounding-board, and the strings arranged and tuned in three separate groups to the intervals of the common chords, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

WILLIAM J. CHRISTY. [L. S.]

Witnesses:

M. C. SMITH,

GEO. D. SMITH.