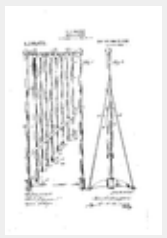
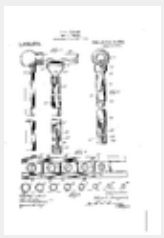
Google Patents

Musical chimes.

Images (2)

Classifications

G10D13/08 Multi-toned musical instruments with sonorous bars, blocks, forks, gongs, plates, rods or teeth

Landscapes

Physics & Mathematics

Engineering & Computer Science

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US1100671A
United States

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Inventor: John Calhoun Deagan

Current Assignee : Individual

Worldwide applications

1910 • US

Application US59778010A events

1910-12-17 • Application filed by Individual
1910-12-17 • Priority to US59778010A
1911-10-02 • Priority to US652410A
1914-06-16 • Application granted
1914-06-16 • Publication of US1100671A
1931-06-16 • Anticipated expiration
Status • Expired - Lifetime

Info: Cited by (14), Similar documents, Priority and Related Applications

External links: USPTO, USPTO PatentCenter, USPTO Assignment, Espacenet, Global Dossier, Discuss

Description

J. G. DBAGAN. MUSICAL CRIMES. APPLIGATION FILED DEO.17,1910.

2 SHEETSSHEET 1.

17104375730; kick/ru Patented June 16, 1914.

J. O. DEAGAN.

MUSICAL GHIMES.

APPLICATION FILED DEC.17, 1910.

Patented June 16,1914.

' 2 SHBETSSHEET 2 VII/I/I/ STATES PATENT OFFICE.

.ICIIN CALHOUN DEAGAN, or CHICAGO, ILLINOIS.

MUSICAL CHIMES.

Application filed December 17, 1910. Serial No. 597,780.

To all whom it may concern:

Be it known that I, JOHN citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Musical Chimes, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to musical chimes and has a number of objects and advantages which will fully appear by a description of the preferred embodiment of the invention shown in the accompanying drawings but to which. specific'embodiment, however, 1 do not wish to be limited as further embodiments of my invention may be made Without departing from the spirit thereof.v

In the drawings Figure 1 is a view in elevation of a musical instrument constructed in accordance with the invention; Fig. 2 is a side view of the structure; Fig. 3 is a detail View looking from the front of the instrument, portions being broken away owing to lack of space available for illustration; Fig. 4 is a view in cross section showing another detail, parts again being broken away; Fig. 5 is a sectional view on line 55 of Fig. 1, and Fig. 6 is a diagrammatic view illustrating the graduated thickness of the walls of the tubular chimes that enter into the construction of the instrument and the graduated'areas of the bores of such chimes taken in cross section.

Like parts areindicated by similar char- C. DEAGAN,

acters of reference throughout the different figures.

The tubular ch'imes7, 8, 9, 10, 11, 12, 13

and 14 are-suspended from the top rail 15 of a supporting framework in a manner which will hereinafter be set forth, the suspending means permitting the tubes to hang 'ree so that they may vibrate when struck or are otherwise operated upon for the purpose of setting up vibration. The tubes are graded in length so as to produce tones of a musical scale, the instrument illustrated being capable of producing those tones that are described in musical notation as o, d, e, f, g, a, b, 0, the tube 7 producing the lower 0, the tube 14 the upper c, and the tubes be tween 7 and 14: producing the intervening tones in required order, though I do not Specification of Letters Patent.

PatentedJune 16, 1914.

limit myself to a scale of this precise character.

It has hitherto been the practice to maketubes of uniform diameters both internally and externally with the. walls of the tubes of different diameters having thicknesses out of proportion to their lengths when varied in the formation of musical inst-ruments, it also being true that tubes of differlng diameters had their thicknesses out o fproportion relatively to each other in a given musical instrument. It has been found that instruments constructed in the old way would produce disagreeable over or partial tones, the over or partial tones oftentimes preponderating over the fundamental tones, particularly at the upper ends of the scale. I avoid the objectionable preponderating effect of the overor artial tones by having the thicknesses of t e Walls of the tubes decreasing from the lowest tone producing tube to the highest tone producing tube. Such an arrangement is diagram matically illustrated in 'Fig. 6 which is intended to illustrate the relative dimensions of the outside diameters, inside diameters and the thicknesses of the tubes shown in Fig. 1. I thus have produced a musical instrument including a plurality of tubes of differing lengths for producing the tones of a musical scale, the thickness of the'walls of each tube being greater than the thickness of each shorter tube, the external diameter of each tube being greater than the external greater ternal diameter of each tube being shorter than the internal diameter of eac tube. of a musical instrument embracing the invention are as follows, the capital letters in- A separator 16 is employed for keeping diameter of each shorter tube and the in-' Satisfactory dimensions of the tubesthe chimes apart at their lower ends, this separator having portions 17 passing into the spaces between adjacent chimes and in proximity to nodal points of such chimes whereb the vibration of the tubes is not materially interfered with if they should swing into contact with the portions 17. The portions 17 are desirably in the form of metal pins faced with rubber. The separator is also desirably provided with faeings 18 of felt so that each tube is surrounded by nonsound conducting material.

Each .tube is supported by a suspender which is preferably, though not necessarily, in the form of a loop 19 whose sides pass very freely through holes 20 provided 1n a plug 21 sweated in to the upper end of each tube when the tube is made of bell metal, which is the, preferred material though I do not wish to be limited to any particular metal; Holes 22 are drilled into opposite side portions of each tube that communicate with the holes 20. The loops 19, which may if desired be made of cat gut, have their ends pass through the openings 20 and 22, the free ends of the loops thereafter being knotted or otherwise provided with enlargements to prevent the withdrawal thereof from engagement with the metal about the holes 22. The holes'22 in each tube are desirably located in close roximity to the nodal point .near the top of the tube whereby to reduce or avoid any interfering influenee which the suspender might have upon the vibration of the tube. The top rail 15 of the supporting frame is provided with a series of hooks 23 thatengage the loops as illustrated most clearly in Fig. 3', whereby the tubes are suspended.

I preferably provide each of the tubes with a pitch adjuster made in accordance with another featureof my invention. This pitch adjuster, in the embodiment of the invention illustrated, includes a weight 24 that desirably includes in its formation a threaded shank 25 in engagement with the threaded bore of a plu 26 in the lower end of the tube. The weig ts 2 1 are desirably smaller when applied to the shorter tubes, though in each instance the threaded shank forms a material art of the adjusting weight. By turning t e weight it may be adjusted longitudinally of the tube 'until the desired pitch adjustment is secured, the adjustment after having been secured being maintained by a lock nut 27. I do not wish to be limited to the form of adjustable weight shown as I claim very broadly the use of a Weight adjustable longitudinally of the tube for tuning purposes.

I have filed a division of this application on Oct. 2, 1911, which bears Serial No. 652,410, this divisional application containing claims that are directed to the construction and arrangement of a single musical sounding element, the claim in the present application being directed to the novel group of bells herein set forth.

Having thus particularly described one embodiment of my invention, to which, however, I do not wish to be limited, I claim as new and desire to secure by Letters Patent the following:

A musical instrument including a plurality of tubes of differing lengths for producing tones 'of a musical scale, the thickness ofthe walls of each tube being greater than the thickness of each shorter tube, the exterior diameter of each tube being greater than the external diameter of each shorter tube, and the internal diameter of each tube being great-er than the internal diameter of each shorter tube.

JOHN CALHOUN D EAGAN.

Witnesses:

' E. M. LUDWIG,

ROBERT C. Lunwre.

Cited By (14)

Publication number	Priority date	Publication date	Assignee	Title
US2512777A *	1946-07-26	1950-06-27	Rest Thelma	Musical toy
US2542540A *	1946-05-28	1951-02-20	Schulmerich Electronics Inc	Tuning method for musical instruments
US2606474A *	1948-11-17	1952-08-12	Schulmerich Electronics Inc	Musical instrument
US2622467A *	1948-11-17	1952-12-23	Schulmerich Electronics Inc	Musical instrument
US4469003A *	1982-09-23	1984-09-04	Phelps Sidney J	Tube chimes
US5410937A *	1992-11-13	1995-05-02	Yamaha Corporation	Supporting mechanism for a sound generator of a musical instrument
US6111178A *	1997-08-14	2000-08-29	Grace Note Chimes, Incorporated	Chime assembly
US6598557B2 *	2001-08-06	2003-07-29	Peter H. Kelley	Simultaneous toasting device

WO2011026208A2	2009-09-02	2011-03-10	Alphonse Emile Van Leggelo	Musical instrument mechanically activated
US20170278494A1 *	2016-03-22	2017-09-28	Yamaha Corporation	Supporter for supporting sound tubes to be hung therefrom and method of producing the same, and musical instrument
US20180137844A1 *	2016-11-15	2018-05-17	Schmick, Llc	The Configurable Music Station
US10467997B2 *	2018-03-14	2019-11-05	Schmick, Llc	Collapsible music station
US10685635B2 *	2016-03-22	2020-06-16	Yamaha Corporation	Sound tube having a cap, the cap thereof, and musical instrument including the sound tube
USD1053939S1 *	2022-08-20	2024-12-10	Michael Maerkle	Percussion instrument
Family To Family Citations				

* Cited by examiner, † Cited by third party, ‡ Family to family citation

Similar Documents

Publication	Publication Date	Title
US1763518A	1930-06-10	Stephen haweis
US2655069A	1953-10-13	Means for and method of tuning vibrating bars or rods
US2273333A	1942-02-17	Vibrant bar and method of tuning the same
HU191937B	1987-04-28	Bell
US1173785A	1916-02-29	Percussion musical instrument.
JP6531866B2	2019-06-19	Sound tube
US3314324A	1967-04-18	Means for enhancing and reinforcing the tones emitted by a musical instrument having a resonance chamber
US563113A	1896-06-30	Haupt
US5198602A	1993-03-30	Sound bar for percussive musical instrument
US6365808B1	2002-04-02	Method of constructing stringed instruments
US1293723A	1919-02-11	Xylophone.
US3589233A	1971-06-29	Bell tone generator
US2705936A	1955-04-12	Musical door movement signal
US1859553A	1932-05-24	Means for modifying vibrations of strings
US644817A	1900-03-06	Musical instrument.
US559805A	1896-05-12	Chime
US747341A	1903-12-15	Musical instrument.
US1961900A	1934-06-05	Stringed musical instrument and method of sound amplification
US890341A	1908-06-09	Musical bell.
US1402219A	1922-01-03	Apparatus for tuning musical instruments
US1813832A	1931-07-07	Musical element
US2263106A	1941-11-18	Tuning fork piano
US796289A	1905-08-01	Tuning device for musical instruments.
US1237873A	1917-08-21	Percussion musical instrument.
US460863A	1891-10-06	Carl gtimbel

Priority And Related Applications

Priority Applications (2)

Application	Priority date	Filing date	Title
US59778010A	1910-12-17	1910-12-17	Musical chimes.
US652410A	1910-12-17	1911-10-02	Musical bell.

Applications Claiming Priority (1)

Application	Filing date	Title
US59778010A	1910-12-17	Musical chimes.

Concepts

machine-extracted

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