

W. I. KIRK.
MUSICAL BELL.
APPLICATION FILED FEB. 14, 1916.

1,291,550.

Patented Jan. 14, 1919.

Fig. 1.

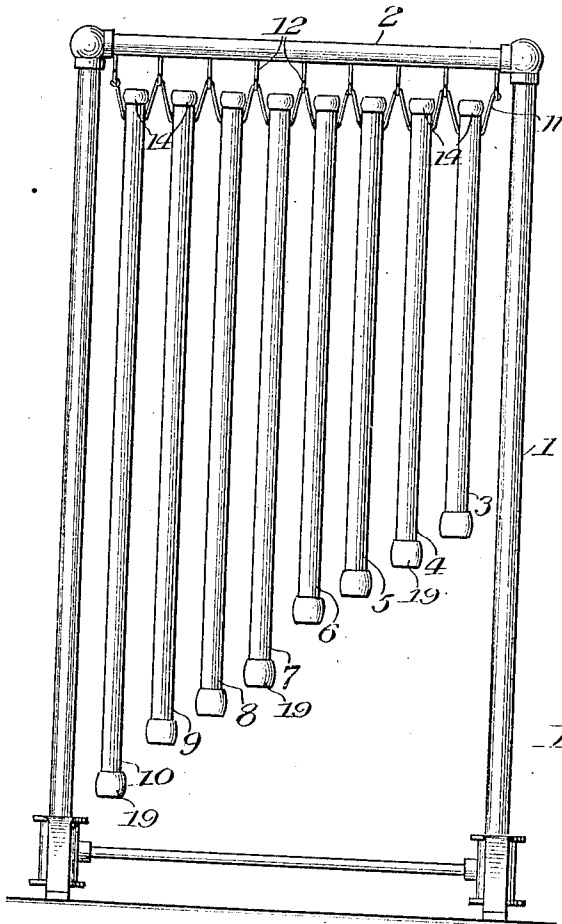


Fig. 2.

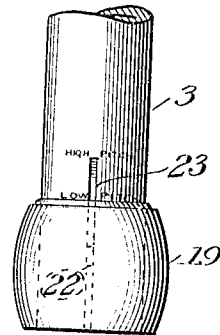


Fig. 3.

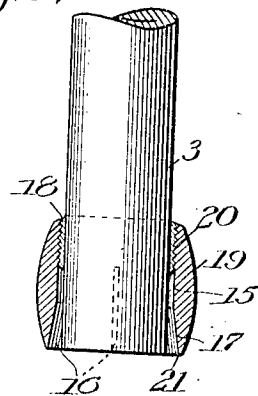
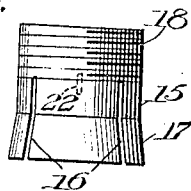


Fig. 4.



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UNITED STATES PATENT OFFICE.

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MUSICAL BELL.

1,291,550.

Specification of Letters Patent.

Patented Jan. 14, 1919.

Application filed February 14, 1916. Serial No. 78,123.

To all whom it may concern:

Be it known that I, WALTER I. KIRK, a 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 Bells, 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 bells consisting of long tubular members suspended at their upper ends, a set of such tubular members of different lengths being associated together so as to give different tones in the musical scale.

The principal objects of the invention are to arrange for advantageously operating or striking the tubular members, and also to provide for adjusting the effective length of said members so as to produce the desired pitch with accuracy.

In the accompanying drawings, Figure 1 is an elevation of an instrument comprising a set of musical bells embodying my invention;

Fig. 2 is a view on an enlarged scale of the lower end of one of said bells;

Fig. 3 is a view similar to Fig. 2 with a portion of the device shown in vertical section; and

Fig. 4 is an elevation of a detail of construction.

In Fig. 1 I show a suitable frame 1, the horizontally arranged top member 2 of which serves as a support for a series of tubular musical bells 3, 4, 5, 6, 7, 8, 9, and 10. The bells 3, 4, etc., may be suspended from the top 2 of any convenient arrangement, as for example by strings 11 engaging hooks 12 on the member 2 and secured to the upper ends of the bells. At the upper end of each bell there is an enlargement 14 which is conveniently made by a collar fitted and secured upon the upper end of the bell. This forms an annular enlargement around the upper end of the bell, and so provides an advantageous striking element which can be readily hit by a suitable striking instrument, thereby affording a projecting surface which is more convenient and desirable to strike than the upper flat edge of the bell or the annular corner of the same.

At the lower end of each bell there is provided an arrangement for weighting the bell

and also for adjusting its effective length so as to determine with accuracy the pitch of the bell. This arrangement conveniently comprises a sleeve-like member 15, made with a plurality of longitudinal slots 16 so as to permit it to fit loosely over the lower end of the bell and also to be contracted in size by external compression so as to fit tightly and grip the bell. The lower portion of this sleeve 15 is conically shaped or beveled as at 17. Its upper portion is externally threaded as at 18. Outside of this sleeve member 15 is a collar 19 internally threaded at 20 so as to engage the threads 18 on the member 15. The lower end 21 of the bore of the collar 19 is of substantially the same size as the lower end of the beveled or conical surface 17 of the member 15. And the lower portion of said bore is conically inclined substantially in correspondence with the conical surface 17 of the member 15. Thus when the collar 19 is turned so as to move it upwardly its lower end moves away from the conical surface 17 of the member 15, thereby leaving the split sleeve member 15 without external pressure so that it may be readily adjusted longitudinally of the bell. Adjustment therefore may be made at this time to any desired vertical position on the bell. When such desired position has been reached, the collar 19 is turned so as to move it downwardly relatively to the member 15, whereupon its lower end engages the conical surface 17 of said member 15, thereby compressing the same inwardly and causing the member 15 to grip the outer surface of the bell firmly and securely so as to hold said member 15 with the collar 19 upon it firmly locked in position upon the bell. In this position the cooperating members 15 and 19 will be firmly held in adjusted position and the bell may be used indefinitely with them in such position. When desired to change their position the collar 19 is turned so as to adjust it upwardly upon the member 15 whereupon any desired adjustment of said members may be made.

I preferably provide the interior of the sleeve 15 with a projection 22 (Fig. 2), and also provide the lower portion of the tubular bell with a longitudinally extending slot 23 in which the projection 22 is adapted to move, whereby the sleeve 15 may be held against rotary motion when the collar 19

is rotated. By terminating the upper end of the slot 23 at a moderate distance from the bottom of the bell, the upward movement of the member 15 beyond a predetermined point is prevented.

I also preferably provide marks or indications upon the outer surface of the bell to indicate to what point the sleeve 15 is to be adjusted in order to secure different accurate pitches. For example, as shown in Fig. 2, a line with the words "High pitch" indicates the point where adjustment is to be made to obtain accurately the high pitch of the note to be sounded by the bell, and another line with the words "Low pitch" indicates the adjustment where low pitch may be accurately obtained.

It will be understood that changes and modifications may be made without departing from the spirit of the invention.

What I claim is:

1. An elongated tubular member forming a musical bell and a short sleeve or collar adjustably mounted upon the lower end of said bell, whereby the unbroken length of said tubular member may be employed for musical purposes and the pitch of the same may be varied by the adjustment of said collar.

2. A musical bell provided with a split sleeve having an annular inclined surface in combination with a collar having a threaded connection with said split sleeve and having an annular surface arranged to cooperate with the annular inclined surface on said sleeve so as to cause said sleeve to grip said bell or to have loose sliding connection with the same upon the adjustment of said

collar relatively to said sleeve by means of said threaded engagement.

3. A musical bell provided with a split sleeve having an annular inclined surface in combination with a collar having a threaded connection with said split sleeve and having an annular surface arranged to cooperate with the annular inclined surface on said sleeve so as to cause said sleeve to grip said bell or to have loose sliding connection with the same upon the adjustment of said collar relatively to said sleeve by means of said threaded engagement, said sleeve being arranged outside of said musical bell and said collar being arranged outside of said sleeve.

4. A musical bell provided with a split sleeve having an annular inclined surface in combination with a collar having a threaded connection with said split sleeve and having an annular surface arranged to cooperate with the annular inclined surface on said sleeve so as to cause said sleeve to grip said bell or to have loose sliding connection with the same upon the adjustment of said collar relatively to said sleeve by means of said threaded engagement, said bell being provided with a longitudinally extending groove, and said sleeve being provided with a projection adapted to fit and slide in said groove.

In witness whereof, I hereunto subscribe my name this 26th day of January, A. D., 1916.

WALTER I. KIRK.

Witnesses:

A. LYDA JONES,

A. MILLER BELFIELD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."