United States Patent

[11] **3,566,737**

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[21] Appl. No. **846,315**
[22] Filed **July 29, 1969**
[45] Patented **Mar. 2, 1971**

[54] **MUSICAL INSTRUMENT**
10 Claims, 4 Drawing Figs.

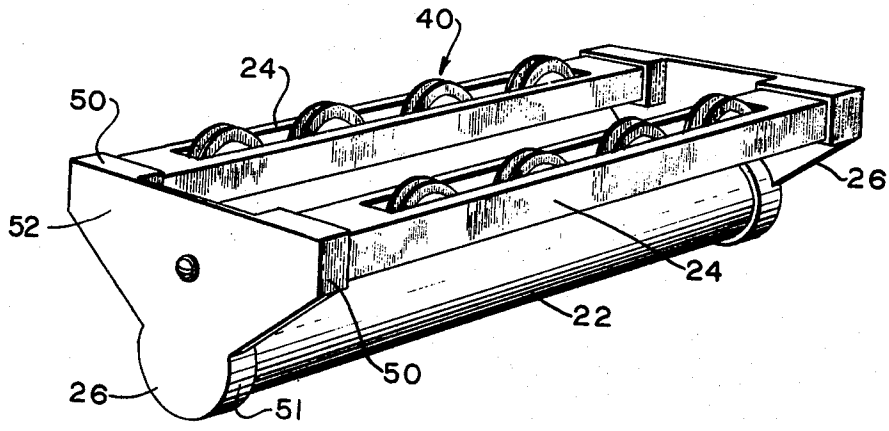
[52] **U.S. Cl.** **84/402,** 84/418, 46/191, 46/193
[51] **Int. Cl.** **G10d 13/00**
[50] **Field of Search** 84/402, 418; 46/189, 190, 191, 192, 193

[56] **References Cited**
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ABSTRACT: A musical percussion instrument including a container enclosing pellets and a set of jingles, the container and jingles so arranged as to permit selective sound generation from the container and pellets or from the jingles depending upon the directions in which the instrument is shaken.



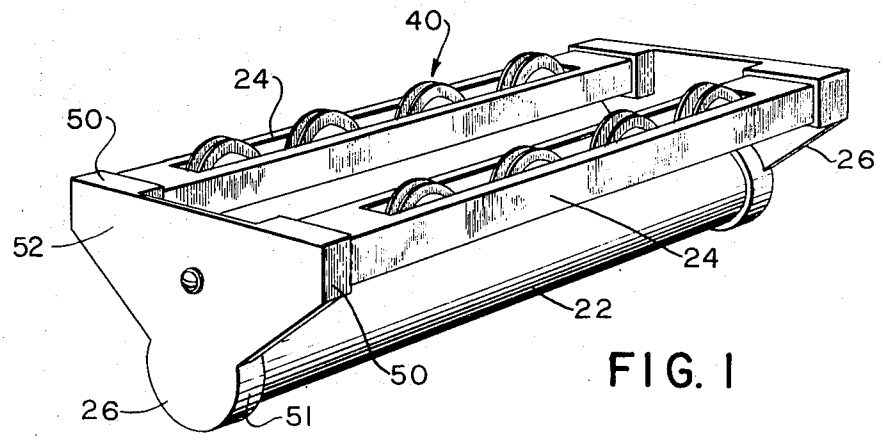


FIG. 1

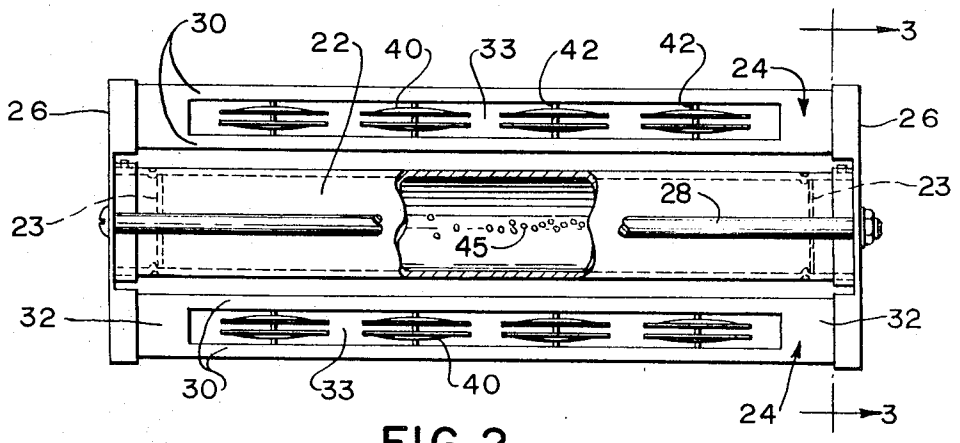


FIG. 2

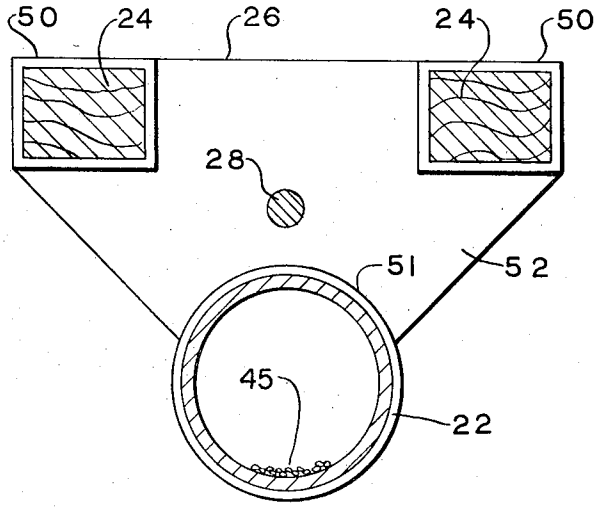


FIG. 3

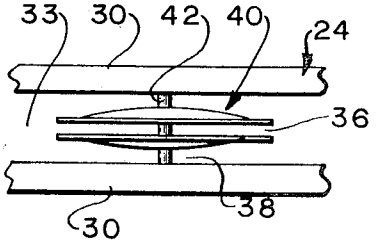


FIG. 4

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MUSICAL INSTRUMENT

BACKGROUND OF THE INVENTION

Musical instruments employing loose metallic discs or jingles together with another sound-producing element have been constructed before (e.g. the tambourine, a one-headed drum with jingles attached to the periphery). Other instruments have been constructed operating upon the principle of pellets enclosed in a resonant container which when shaken sounds from the impact of the pellets upon the inner walls of the container (e.g. certain gourd instruments). Such devices are limited in the relation of sounds that may be simultaneously emitted from the different components of the instrument and in some instances are limited in the selectivity of sounds that can be generated.

SUMMARY OF THE INVENTION

It is thus an object of this invention to provide a percussion instrument which is capable of generating a plurality of percussion sounds in selective combination and in controlled sequence and volume.

A further object of this invention is to provide a unique percussion instrument which is easy to master and play and is capable of generating three unique sound patterns.

A further object of the invention is to provide an instrument which, when shaken, produces either of three distinct sounds depending upon the direction of shaking. Other objects are to provide such an instrument which is compact enough to be played with one hand, which requires no separate control to be operated in order to switch from one sound to the other, which produces sounds that are pleasing to the listener, and which is simple and economical to manufacture.

The invention features a container enclosing pellets which strike the container walls when the instrument is shaken in one orientation and a set of jingles which sound when the instrument is shaken in a second orientation normal to the first. In the preferredembodiment the container is elongated and generally cylindrical so that the pellets strike the end walls (producing sounds upon impact) when the instrument is shaken axially or rocked so that gravity produces end impacts and the jingles are mounted upon pins oriented perpendicular to the cylinder axis so that when the instrument is shaken parallel to the pins the jingles ring, but the pellets roll upon the cylinder sidewalls rather than striking the end walls. This arrangement permits the musician to produce rhythmic sounds from either the pellets, the jingles, or both, depending only upon the manner in which the instrument is shaken.

Other objects, features, and advantages of the invention will be apparent from the following description of a preferred embodiment of the invention and from the attached drawings.

BRIEF DESCRIPTION OF DRAWINGS

FIG. **1** is a perspective view partially in section of the entire instrument according to the invention;

FIG. **2** is a top plan view with portions fragmented;

FIG. **3** is a cross-sectional view taken along the line **3–3** of FIG. **2**; and

FIG. **4** is a fragmentary plan view of a detail of the invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

Referring to the drawings, the instrument includes three major components: a cylindrical pellet container **22**, and two jingle support frames **24**. These three components are secured together in spaced relationship by end braces **26** and a rod **28** which passes through the end braces and holds them against opposite ends of the container and the jingle support frames.

Each of the jingle support frames **24** is an elongated rectangular frame having spaced parallel sidewalls **30** joined by integral end portions **32** and defining a central slot **33**. Within this central slot are four pairs of jingles **40** spaced longitudinally one from another. The jingles are mounted to the sidewalls **30** by means of pins **42** passing through holes at the center of the jingles and secured at their ends in the sidewalls **30**.

The size and shape of the jingles determine the quality of the emitted sound. By shaping the jingles so that the points of mutual impact **36** are near the periphery of the jingles and so that the area of contact **38** with the frames **24** is minimized, excessive damping of the sound is avoided. The jingles are free to slide axially and to tilt upon pins **42** (which fit loosely) and to strike each other when the instrument is shaken in directions having components parallel to the pins **42**.

Pellet container **22** is preferably provided with metal end plugs **23** which prevent the pellets **45** contained within from striking and excessively wearing braces **26**. In the preferred embodiment, the pellets are metal shot, and the pellet container is formed of plastic tin or any other tubular sound device. The material and dimensions of the container and the size of the shot may be varied in accordance with the desired quality of sound.

In addition the combination of a plastic sidewall over which the pellets slide and the metal end plate upon which the pellets impact when the instrument is shaken in a direction having a component lengthwise of the container **22** generates an enhancing and novel sound which is capable of three significant rhythmic variances.

The braces **26** may be suitably formed of metal and provide brackets **50** designed to receive ends of the frames **24** in spaced relation. A bracket **51** on each brace **26** is designed to receive an end of container **22**. These brackets **50** and **51** are commonly supported by the interconnecting web **52** through which the ends of rod **28** may extend and be removably secured. The rod **28** may comprise for this purpose a nut and bolt arrangement as illustrated in FIG. **2**. By providing such an arrangement the instrument may be quickly disassembled for purposes of substituting different quantities or types of pellets **45** to obtain different sounds.

The instrument may be held by the container **22** and shaken in a variety of directions so as to impact the jingles or the pellets against each other or against their supporting members successively or simultaneously in controlled relative volume and time periods.

It is evident that those skilled in the art may now make numerous uses and modifications of and departures from the specific embodiment described herein without departing from the inventive concepts. Consequently, the invention is to be construed as embracing each and every novel feature and novel combination of features present in or possessed by the apparatus and techniques herein disclosed and limited solely by the spirit and scope of the appended claims.

I claim:

1. A musical instrument comprising:

a closed container having a plurality of loose elements contained therein and adapted when said instrument is shaken to strike the interior surface of said container and to generate a first sound;

a plurality of jingles and means supporting said jingles in a plurality of pairs with said jingles adapted when shaken to generate a second sound; and

means securing said jingle supporting means to said closed container.

2. The musical instrument of claim **1** wherein said closed container is elongated and said jingle support means secure said jingles for shaking movement in directions substantially normal to the length of said container.

3. The musical instrument of claim **2** wherein said pairs of jingles are arranged laterally to the length of said closed container and in spaced relationship thereto.

4. The musical instrument of claim **1** wherein said closed container is cylindrical and said jingle support means secure said jingles for shaking movement in directions substantially normal to the axis of said container.

5. The musical instrument of claim 1 wherein said jingle support means comprise an elongated frame having spaced sidewalls and a plurality of said pairs of jingles are positioned between said sidewalls and supported upon pins extending through said pairs of jingles and having ends secured to said sidewalls.

6. The musical instrument of claim 5 wherein said means securing said jingle support means to said container comprises a pair of end braces positioned at opposite ends of said jingle support means, each of said braces having means for engaging and supporting said container and said jingle support means in fixed relation to one another.

7. The musical instrument of claim 6 further comprising an elongated rod extending longitudinally through said end braces and holding said end braces in engagement with said container and said jingle support means.

8. The musical instrument of claim 1 wherein said container is so shaped internally that said instrument may be shaken in directions such as to cause said jingles to sound with causing said loose elements to strike any interior surfaces of said container with sufficient velocity normal to said surfaces to produce appreciable striking sounds.

9. The musical instrument of claim 1 wherein said jingles are so mounted that said instrument may be shaken in directions such as to cause said loose elements to hit the interior surfaces to produce appreciable striking sounds without causing said jingles to generate appreciable jingle sounds.

10. The musical instrument of claim 1 wherein:

the interior surface of said container includes opposed flat portions and intermediate curved portions so disposed that said loose elements are caused to strike said flat portions when said instrument is shaken in a first set of directions and are caused to move tangentially to said curved portions when said instrument is shaken in a second set of directions; and

said jingles are so mounted as to sound when said instrument is shaken in some but not all of said second set of directions and so as to not sound when said instrument is shaken in some but not all of said first set of directions,

whereby said instrument is adapted for selective generation of element striking sounds, jingle sounds and simultaneous striking and jingle sounds depending upon the direction in which it is shaken.