

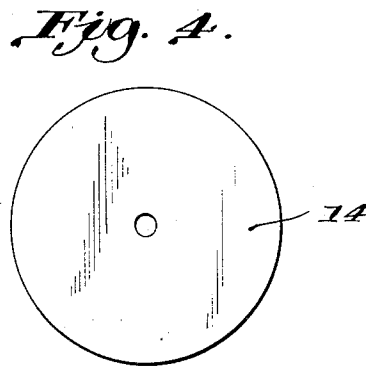
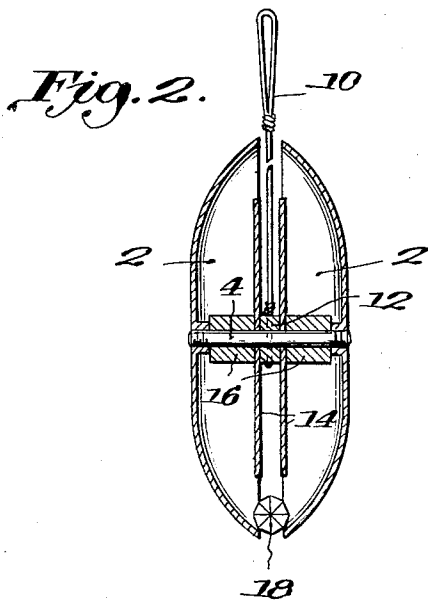
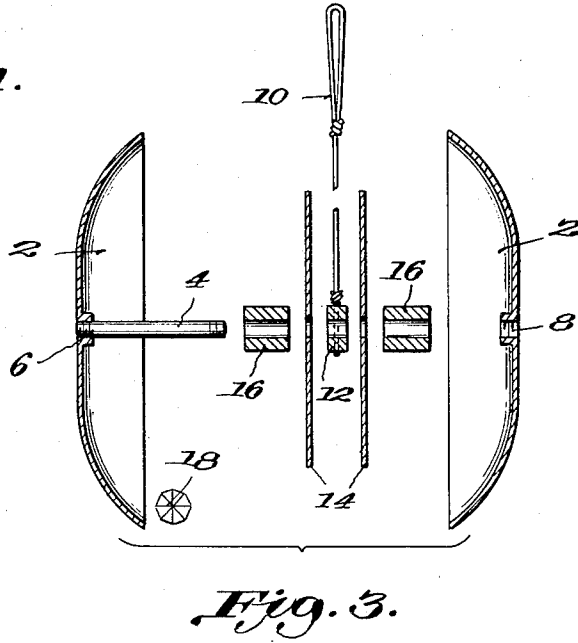
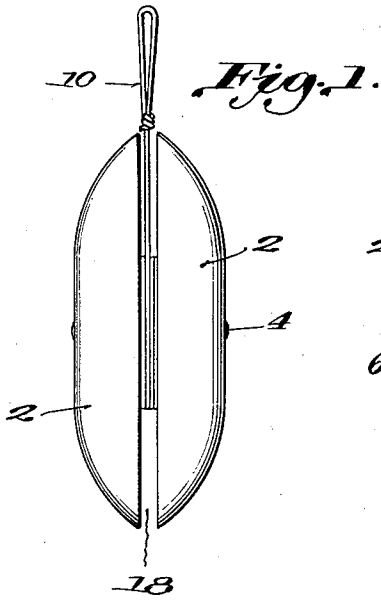
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MUSICAL TOY

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MUSICAL TOY

Application filed May 17, 1930. Serial No. 453,333.

This invention relates to musical toys and more particularly it relates to spinning toys of the variety which are adapted to give forth musical sounds when operated.

5 Devices of this type have been given the name of "Yo-Yo." The "Yo-Yo" is a top, which, instead of being mounted on a projecting axis to rotate on a stationary bearing surface, is suspended to a cord or string.
10 The string is wound around a central shaft. When the string is seized at its free end and the device is allowed to fall, the string rapidly unrolls and in so doing imparts rotary motion to the device. When the "Yo-Yo"
15 reaches the limit of its downward fall, it will, owing to the rotary motion, wind the string again on the shaft. To aid in the rewinding a slight upward pull must be given to the string at the proper moment.
20 The device will then alternately fall and rise as the cord is held in the hand.

Originally devices of this kind were carved from wood and were in the form of a substantially spherical object with an annular groove cut in the central portion thereof.

Later the "Yo-Yo" was constructed of metal by placing basins or dished members against each other with their hollow surfaces facing, a small space being provided between the two rims of the dishes forming a passage for the string which was secured to the shaft connecting the dishes. A small pebble or bead of hard material was enclosed within the device to produce a ringing sound when the "Yo-Yo" was in operation.

The main disadvantage of devices of this character and construction was that the bead member would frequently become stuck or wedged between the edges of the dished members, interfering with the movement of the string. Where the device was provided with inner discs, these discs have usually been given a curved bell-shape conforming substantially to the end of the bell of a trumpet. It is apparent that in such a construction there is nothing to prevent the bead from becoming wedged between the
50 discs. As will later be pointed out, the ap-

plicant's improved structure is not subject to these and other disadvantages.

The general object of this invention is to provide a "Yo-Yo" of the improved type which will produce musical bell-like sounds. 55

Another object of the invention is to provide a device of the type mentioned which may be easily and cheaply manufactured to be sold at a low cost, and quickly assembled for operation. 60

As a further object this invention aims to provide a device in which the means for producing the musical tones will not in any way interfere with the winding and unwinding of the cord or string when the "Yo-Yo" is in operation. 65

These and other objects of the invention will become apparent from the following specification when read in connection with the accompanying drawings and will be pointed out in the appended claims. 70

In the drawings:

Fig. 1 represents an end view of the device.

Fig. 2 represents an end view of the device, the assembled parts being shown in cross-section. 75

Fig. 3 shows the parts in unassembled position.

Fig. 4 is a plan view of one of the inner discs. 80

As represented in the drawings, the "Yo-Yo" is constructed of two basins or dished members 2 of resonant material. In assembled position these dished members are placed with their concave surfaces facing but not touching and are secured together at their axes by means of a pin or shaft 4. The pin or shaft acts as an axle and may be riveted or soldered to the concave surfaces of the dished members to secure them in position. In practice and as illustrated in the drawings, one end of the pin is fixed to the inner concave surface of one of the dished members as at 6. The other dished member is provided with a threaded recess 8 for engaging the free end of the pin which is threaded. 85 90 95

One end of a string 10 is secured to a small drum member 12 having an aperture 100

therethrough for mounting on the pin 4. A pair of flat circular discs 14 are loosely mounted on the pin 4 at their central portion, being separated by the small drum member 12 to which the string is attached.

5 These discs are slightly smaller in diameter than the dished members and may be made of any suitable material, but preferably of metal having resonant qualities. To retain
10 the discs in position and to properly space them from the dished members, drums 16 journaled on the shaft or pin 4 are used as separating members. When the dished members are assembled on the shaft by screwing
15 them on the pin, the discs and the drums are frictionally pressed together on the pin so as to rotate therewith.

To produce musical bell-like sounds during operation of the device a small, many
20 sided bead 18 of hard material such as glass, is inserted between the dished members so as to be entrapped thereby. The bead is of a diameter larger than the space between the parallel discs and also larger than the
25 space between the adjacent edges of the dished members.

When the string is wound around the drum between the parallel discs 14, and the device is held by the free end of the string
30 and allowed to rise and fall in the manner described above, the many sided bead is hurled about in the "Yo-Yo," striking both the dished members and the parallel discs within to produce a pleasing variety of
35 musical bell-like tones.

As the diameter of the bead is greater than the space between the parallel discs or between the adjoining edges of the dished
40 members, it cannot in any way interfere with the winding and unwinding of the string, and it is not possible for it to become wedged between the space separating the edges of the dished members or between the parallel discs.

45 It is also contemplated by this invention that the "Yo-Yo" be provided with parallel discs one of which is larger or smaller in diameter than the other and of material of different resonant qualities, so that a great-
50 er variety of bell-like sounds may be produced. The number and effect of these musical tones may also be augmented by using a number of small beads. Furthermore, the parallel discs may be of such diameter as
55 to substantially form compartments between the dished members and the discs. When this is the case it is possible to place a heavy round object in each of the compartments so formed. The resulting effect
60 is that a pleasing ringing sound is produced by the rolling of the round members, as contrasted to the more or less tingling jingle resultant in the invention as illustrated.

This musical "Yo-Yo" not only provides
65 attractive and inexpensive amusement for

children, but it is an excellent means for providing exercise for the child. In addition to this, the device will greatly aid in developing the child's sense of "feel" and his delicacy of touch for, as stated above,
70 some considerable degree of skill is necessary to keep the "Yo-Yo" in continuous operation.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States is:

1. In a musical toy, a pair of dished members of resonant material, a pin secured at each end to said members, the concave faces of said dished members facing and spaced
80 from each other, a pair of parallel discs mounted on said pin between said dished members, said discs having a diameter smaller than the diameter of said dished members, a pair of drums mounted on said
85 pin spacing the discs from the dished members, a drum mounted on said pin between said parallel discs, a string secured to said drum between the parallel discs and passing
90 between the dished members to the outside, said drums and discs frictionally pressed on said pin to rotate therewith, and a many surfaced bead of hard material entrapped between said dished members, said
95 bead having a diameter greater than the space between the adjoining edges of the dished members and also greater than the space between the parallel discs.

2. In a musical toy, a pair of circular dished members of resonant material, a pin
100 secured at one end to the concave surface of one of said dished members and being threaded at its other end, an internally threaded portion in the concave surface of the other dished member and adapted to
105 engage the threaded end of said pin to secure the dished members with concave faces adjacent and spaced from each other, a pair of parallel circular discs of resonant material mounted on said pin between said
110 dished members, said discs having a diameter smaller than the diameter of said dished members, means for spacing said discs from said dished members, a drum mounted on
115 said pin between said parallel discs, a string secured to said drum between said discs and passing between the dished members to the outside, said members mounted on said pin frictionally pressed together when the
120 dished members are screwed on said pin, a many surfaced bead of hard material entrapped between said dished members, said bead having a diameter greater than the space between the adjoining edges of the
125 dished members and also greater than the space between the parallel discs.

3. In a musical toy, a pair of dished members of resonant material, a pin rigidly secured at one end to one of said dished members and threadedly secured at the other
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end to the other dished member, the concave
faces of said dished members facing and
spaced from each other, a pair of parallel
discs mounted on said pin between the
5 dished members, a pair of drums mounted
on said pin spacing the discs from the
dished members, a drum mounted on said
pin between the parallel discs, a string se-
cured to said drum between the parallel
10 discs and passing between said dished mem-
bers to the outside, said drums and discs
being frictionally pressed together between
said dished members to rotate with said pin,
and a bead entrapped between said dished
15 members.

4. In a musical toy, a pair of dished mem-
bers of resonant material, a pin rigidly se-
cured at one end to one of said dished mem-
bers and threadedly and removably secured
20 at the other end to the other dished mem-
ber, the concave faces of said dished mem-
bers facing and spaced from each other, a
pair of parallel discs mounted on said pin
between the dished members, a pair of
25 drums mounted on said pin spacing the
discs from the dished members, a drum
mounted on said pin between the parallel
discs, a string secured to said drum between
the parallel discs and passing between said
30 dished members to the outside, and a bead
entrapped between said dished members.

In testimony whereof I have hereunto
set my signature.

ALFONSO FLORES MIRAFUENTES.

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