W. BARTHOLOMAE.

SOUNDING TOY.

APPLICATION FILED DEC. 8, 1915.

1,173,141.

Patented Feb. 22, 1916.

2 SHEETS—SHEET 1.

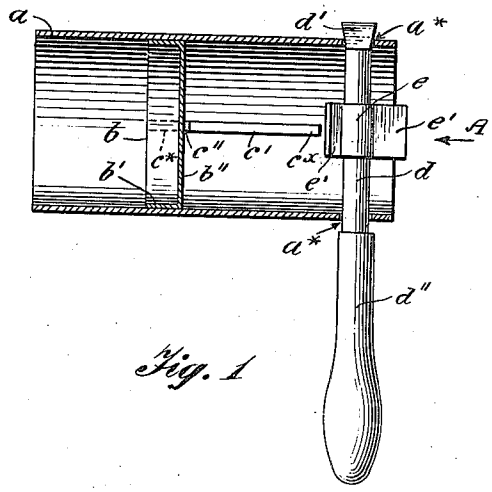


Fig. 1

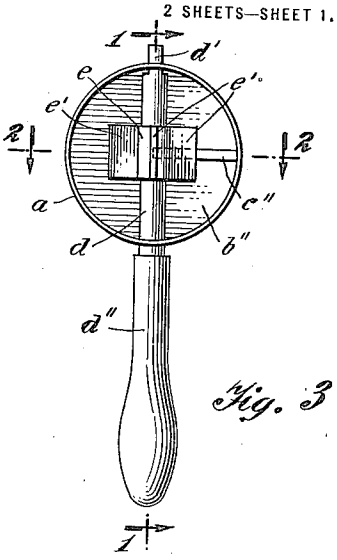


Fig. 3

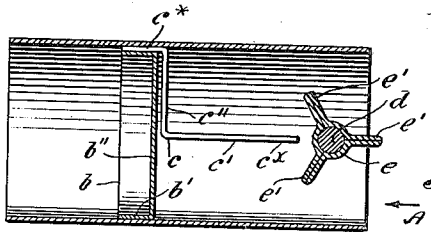


Fig. 2

Fig. 7

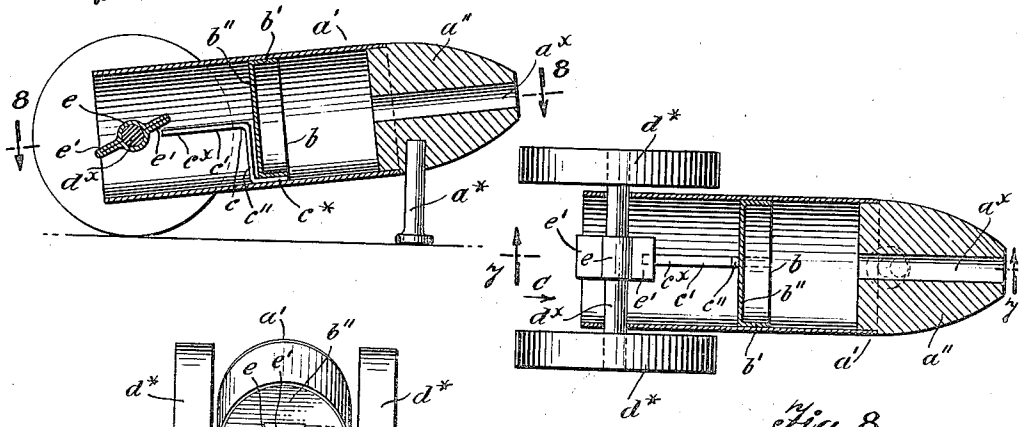


Fig. 8

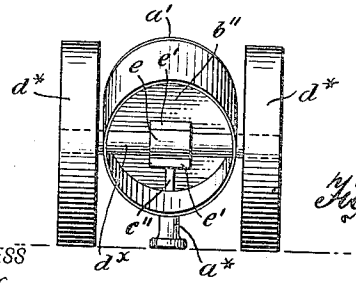


Fig. 9

WITNESS

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2 SHEETS—SHEET 2.

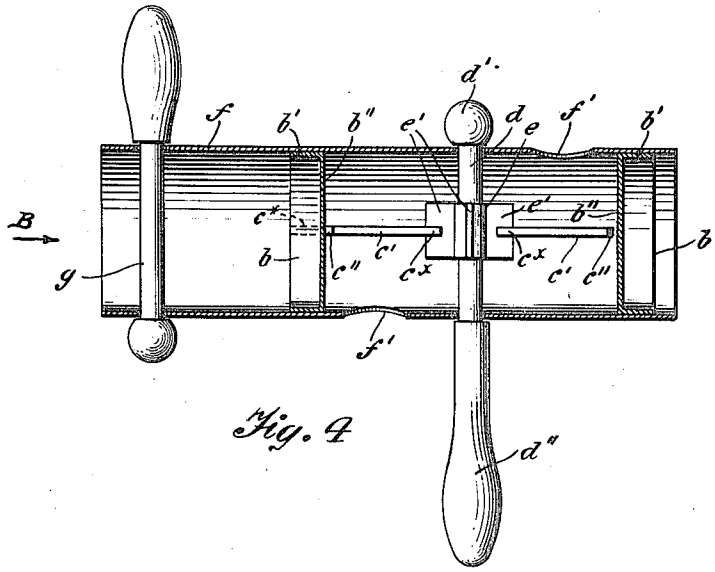


Fig. 4

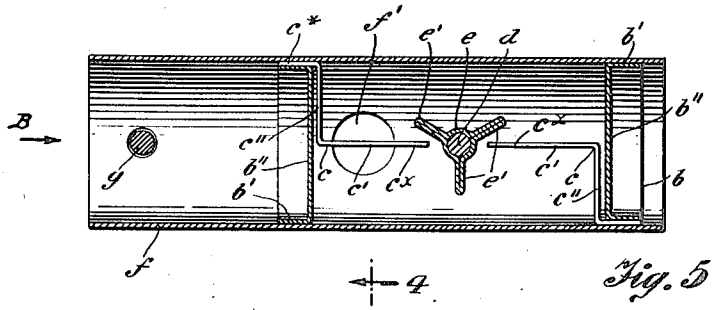


Fig. 5

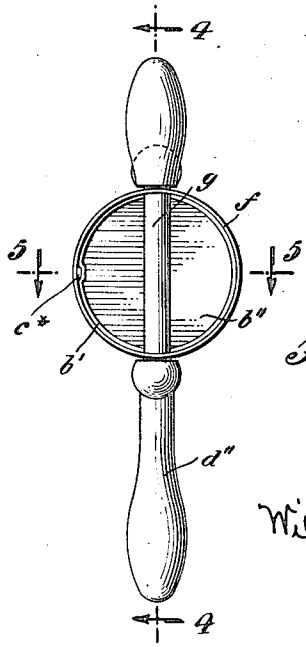


Fig. 6

WITNESS

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SOUNDING TOY.

1,173,141. Specification of Letters Patent. Patented Feb. 22, 1916.

Application filed December 8, 1915. Serial No. 65,660.

To all whom it may concern:

Be it known that I, WILLIAM BARTHOLOMAE, a citizen of the United States of America, residing at the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Sounding Toys, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in sound-producing and noise-making devices and particularly to improvements in sounding toys and rattlers for use on New Year's eve, Fourth of July and other holidays and on festival occasions and celebrations in general, on the street and in public places generally, for example; and an object of this invention is to provide a toy of this kind which will be simple in construction, comparatively cheap in manufacture and efficient for the purpose intended.

Another object of this invention is to provide a sounding toy capable of giving forth a greater volume of sound without a corresponding increase in effort.

A third object of this invention is to provide a sounding toy capable of producing sounds of different tones by a single operation.

Other features of this invention will be disclosed in the description and claims which follow hereinafter.

In the drawings illustrating the principle of this invention and the best mode now known to me of applying that principle, Figures 1 and 2 are longitudinal sections on the lines 1—1 and 2—2, respectively, of Fig. 3; Fig. 3 is an end view looking in the direction of the arrow A of Figs. 1 and 2; Figs. 4 and 5 are longitudinal sections on the lines 4—4 and 5—5, respectively, of Fig. 6 and illustrate another form of this invention in which are provided two strikers with their co-acting drums or sounders each capable of giving forth a sound different from that of the other; Fig. 6 is an end view looking in the direction of the arrow B in Figs. 4 and 5; Fig. 7 is a longitudinal section on the line 7—7 of Fig. 8 and illustrates a wheeled sounding toy embodying this invention; Fig. 8 is a section on the line 8—8 of Fig. 7; and Fig. 9 is an end view looking in the direction of the arrow C in Fig. 8.

In the tubular body-portion a, there is pressed the cup-shaped or dished drum b between the cylindrical wall b' of which and the body-portion a there is stuck or inserted one end c^* of a leaf-spring c bent to form an L the base c'' of which extends parallel with the bottom b'' of the pan-shaped sounder b, while its leg c', the end c^x of which is free to yield, extends axially of the tubular body-portion a. Adjacent to the free end c^x of the leaf-spring striker or hammer c and extending transversely of the tubular body-portion a and through the holes a^* therein, there is rotatably mounted an operating shaft d one end of which is formed with a head d' and the opposite end of which is provided with a handle d''. Mounted centrally upon this operating shaft d, and opposed to the free end c^x of the resilient hammer c, there is a bladed member or star-wheel e the blades e' of which, as they rotate, bend successively the free end c^x of the spring striker c toward the wall of the tube a. When one of the blades e' passes out of contact with the free end c^x, the hammer c is released and springs back and is set in vibration, so that its base c'' strikes the bottom b'' of the sounder or drum b that this base c'' overlies, thereby causing the sounder to give forth a sound the loudness of which is intensified by the resonant character of the tube a and the mounting of the sounding drum b, which is devoid of fastening devices; the drum b is held in place only by its snug fit within the tube a and is comparatively free to vibrate therein and to set in vibration the tube a and the air within the same, the resonant action of the tube a serving to intensify the sound produced. It is obvious that, instead of holding the tube a in one hand and, with the other, turning the shaft d, the operator may hold the latter firmly in his hand and whirl the tube a around the shaft d as an axis.

In the wheeled form shown in Figs. 7, 8 and 9, the toy is given an artistic and ornamental form pleasing to the eye and peculiarly catchy at this time, the body-portion a' being in the form of a projectile or shell

having a head a'' formed with a passage a^x through which may be passed a string (not shown) so arranged that the toy may be pulled around by a child. The passage a^x serves also to permit the propagation outwardly of the sound waves generated. A post a^* serves as a prop for the head a'' of the projectile-like body a', when the toy is at rest. On each end of the shaft or axle d^x, there is mounted fast a wheel d^*. The other parts of the contrivance are substantially the same as disclosed in Figs. 1, 2 and 3. As the toy is dragged along the floor, the wheels d^* turn and, with them, the shaft d^x and the bladed member or actuator e, the arms or wings e' of which successively hit the spring striker c and set the same in vibration and thereby cause it to beat with rapidity upon the panlike drum b.

In Figs. 4, 5 and 6, there is illustrated another form of this invention in which a pair of strikers c are actuated from a common star-wheel e; and, in this form, the drums or sounders b may be so chosen and arranged as to give out different tones and intensify the noise produced. In the tubular body-portion f, there are mounted a pair of dished sounders b between each of which and the tube f is held one end c^* of a spring striker c. The free ends c^x of these strikers c are opposed to each other and, between them, there extends, transversely of the tube f, an operating shaft d that carries a star-wheel e by the arms e' of which the free ends c^x of the resilient strikers c are alternately displaced, whereby the strikers c are made to vibrate with the result already stated. Between the sounders b, the tube f is formed with holes f' to permit the sound to come forth. At one end of the tube f, the device is provided with a loosely-mounted handle g, by means of which the tube f may be turned about the operating shaft d as an axis, when the device operates in substantially the same way as the form shown in Figs. 1, 2 and 3 does, when the tube a is whirled around the shaft d held firmly in the hand.

The constructions illustrated in the drawings and hereinbefore described are capable of being produced in large quantity at small cost, thereby permitting my new sounding toy to be sold to the purchaser at a low price, a feature of great importance in devices of this kind.

The sounder b is forced into the tube a with such high pressure that it forms substantially one piece therewith and the vibrations of this sounder b are transmitted to the tube a, producing a bell-like effect, so that the striker c acts in effect as the clapper or hammer of a bell made up of the striker c, the sounder b and tube a. In the toy or device shown in Figs. 4 and 5, the sounder on the right of the tube f gives forth a tone substantially one octave higher than that given forth by the sounder on the left thereof. By reason of the great pressure under which the sounder b is forced into place in the tube a, the end c^* of the striker c is firmly secured in position.

I claim:

1. A sounding toy including a hollow body-portion having two open ends; a sounder mounted within said body portion and intermediate said ends; a yielding striker arranged to hit said sounder and having one of its ends free; and means for displacing the free end of said striker and setting the same in vibration.

2. A sounding toy including a hollow body-portion having two open ends; a sounder held within said body portion and intermediate said ends by a snug fit; a yielding striker arranged to hit said sounder and having one of its ends free and its other end held between said sounder and body-portion; and means for displacing the free end of said striker and setting the same in vibration.

3. A sounding toy including a tubular body-portion having two open ends; a sounder held within said body portion and intermediate said ends by a snug fit; an L-shaped yielding striker the base of which overlies and is arranged to hit said sounder and the leg of which extends lengthwise of said tubular body-portion and has one of its ends free; and means for displacing the free end of said leg and setting said striker in vibration.

4. A sounding toy including a hollow body-portion; a pair of sounders mounted therein; a striker for each of said sounders; and means common to both said strikers for setting the same in vibration.

5. A sounding toy including a hollow body-portion having two open ends; a pair of sounders mounted within said body portion, the distance of one of said sounders from the open end which is nearer the same being different from the distance of the other sounder from the open end nearer the latter; a striker for each of said sounders; and means common to both said strikers for setting the same in vibration.

6. A sounding toy including a hollow body-portion; a pair of sounders mounted therein; a pair of strikers, one for each of said sounders; and means common to both said strikers for causing the same to vibrate and cause said sounders to give forth sounds.

7. A sounding toy including a hollow body-portion; a sounder mounted therein; a striker arranged to hit said sounder; means for causing said striker to vibrate and hit said sounder; and a device by which said body-portion may be turned around said means as an axis.

8. A sounding toy including a hollow

body-portion having two open ends; a sounder mounted within said body portion and intermediate said ends; a vibratory striker arranged to hit said sounder; and means for causing said striker to vibrate and hit the sounder.

Signed at the borough of Manhattan, city, county and State of New York, this sixth day of December, 1915, in the presence of the two undersigned witnesses.

WILLIAM BARTHOLOMAE.

Witnesses:

R. C. OTHEMAN,

JAMES HAMILTON.