

Feb. 4, 1941.

K. GRAETZ

2,230,835

TOY KAZOO DANCER

Filed May 17, 1940

Fig. 1

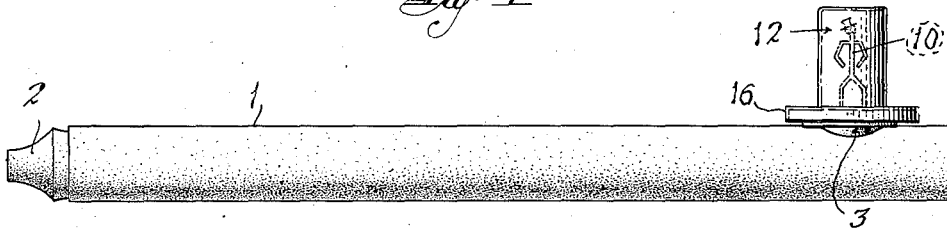


Fig. 2

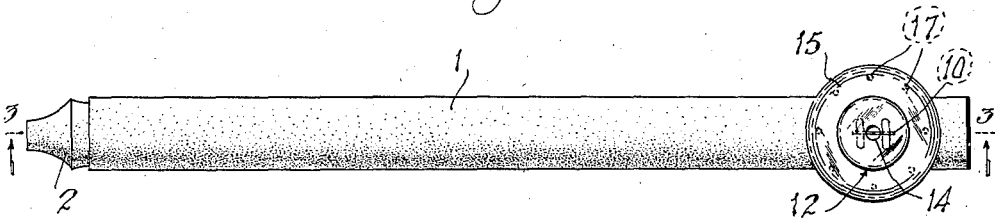


Fig. 3

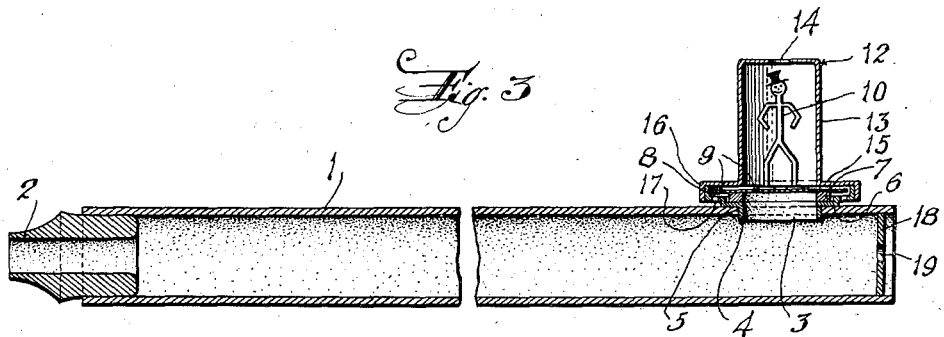
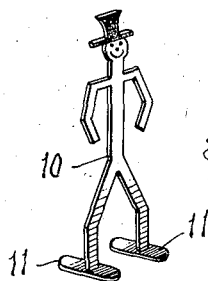


Fig. 4



INVENTOR
Hermit Graetz,
BY
Harry B. Cook,
ATTORNEY

UNITED STATES PATENT OFFICE

2,230,835

ROY KAZOO DANCER

Kermit Graetz, Verona, N. J.

Application May 17, 1940, Serial No. 335,676

2 Claims. (Cl. 46-44)

This invention relates in general to toys, one object of the invention being to provide an attractive toy that shall include a vibratory support, a figure or other object or article that is caused to move or bounce by vibrations of said support, and novel and improved means for mounting said figure or object without direct physical connection to any other part of the toy.

More specific objects are to provide a toy of this character in which a vibratory support or diaphragm shall be vibrated by pulsating air currents and the figure or other object shall be directly moved or bounced by said support or diaphragm; and thus to provide a wind sound-producing instrument, such as a kazoo, that includes a vibratory diaphragm, and a figure or object loosely supported under gravitational influence directly on the top surface of said diaphragm.

Other objects are to provide such a toy wherein said figure shall represent a human being or animal and movement thereof by vibration of the diaphragm shall simulate dancing to the sound or music produced by the instrument; to provide a novel and improved construction, combination and arrangement of parts whereby the figure or object shall be held against accidental displacement from the diaphragm, without direct physical connection to any other part, and shall be clearly visible; to provide a simple, inexpensive and durable construction for the toy; and to attain other objects, advantages and results as will appear from the following description in conjunction with the accompanying drawing in which—

Figure 1 is a side elevational view of a toy constructed in accordance with my invention.

Figure 2 is a top plan view thereof.

Figure 3 is an enlarged vertical longitudinal sectional view on the line 3-3 of Figure 2, and

Figure 4 is a detached perspective view of one form of figure or object.

For the purpose of illustrating the principles of the invention, I have shown it embodied in a generally known type of wind sound producing instrument known as a kazoo, but it should be understood that the invention may be embodied in other types of instruments or devices that include a diaphragm vibrated by pulsating air currents.

Specifically describing the illustrated embodiment of the invention, the reference character 1 designates a tube formed of suitable material such as paper, metal or a synthetic composition and provided at one end with a mouth piece 2

preferably formed of wood. Adjacent the end of the tube opposite the mouth piece, is provided a nozzle 3 having a tubular neck 4 snugly fitted into an opening 5 in the side wall of the tube 1. Integral with the neck 4 is a flange 6 that forms a seat for a diaphragm supporting ring 7 formed of suitable material such as paper or fiber. Outwardly of the flange 6, the nozzle is provided with another angular flange 8 formed with an annular series of vent openings 17.

A diaphragm 9, consisting of a disc of thin sheet material such as Cellophane, tin-foil, or water-proofed paper, rests upon the upper surface of the ring 7.

A figure or other object 10 is loosely set on the upper surface of the diaphragm 9 under gravitational influence. As shown, this figure represents a dancer and is preferably composed of sheet material such as Celluloid or stiff paper and has relatively heavy or weighted foot portions 11 for holding the figure in upright position on the diaphragm.

For holding the diaphragm in position and at the same time preventing displacement of the figure 10 from the diaphragm, I provide a housing 12 formed of suitable transparent material such as Celluloid or Cellophane, and including an inverted cylindrical cup-shaped portion 13 formed with a vent opening 14 in one end and provided with a laterally projecting circumferential flange 15 at the other end which overlies the diaphragm 9 at the side thereof opposite the ring 7. The flange 15 is formed with an integral rim 16 that is telescoped over the flange 8 of the nozzle and secured thereto in any suitable manner.

Preferably the rim 15 is glued to the flange 8, and also the nozzle 3 is glued in the opening 5 of the tube 1, although other suitable fastening means may be provided.

The ring 7 and the diaphragm 9 are preferably unconnected with each other and the marginal portion of the diaphragm extends beyond the outer periphery of the ring. The diaphragm is free from the flange 15, but is loosely clamped between the flange and the ring 7.

The opening through the tube 1 is preferably restricted at the side of the nozzle 3 opposite the mouth piece 2 as by a disc 18 snugly fitted within the tube and having a vent 19.

With this construction, it will be observed that as wind is blown through the tube from the mouth piece 2, the disc 18 serves as a choke, and the air currents are caused to pulsate so as to vibrate the diaphragm 9. Some of the pulsating

air currents escape between the diaphragm and the ring and through the vents 17, so as to enhance the vibratory movements, and the vent 14 allows escape of air from the housing 12 so as to ensure free vibration of the diaphragm. The vibration of the diaphragm in conjunction with the gravitational influence on the figure or object 10, causes the latter to bounce up and down, and where the figure is in simulation of a dancing posture, the movements of the figure simulate dancing to the sound or music produced by the kazoo.

The figure or object is clearly visible to the person blowing air into the tube from the mouth piece 2, and the figure being physically unconnected with any other part of the device, may be highly realistic. The toy is attractive, simple, inexpensive and durable in construction.

Many modifications and changes in the details of construction of the toy will occur to those skilled in the art as within the scope of the invention.

Having thus described my invention, what I claim is:

1. A toy of the character described comprising a tube having a lateral opening, a nozzle in said opening having an outlet communicating with the interior of said tube and formed with an annular seat surrounding said outlet, a diaphragm mounted on said seat and overlying the outlet to be vibrated by pulsating air currents in said tube, an object on and unconnected with

said diaphragm for free movement relatively to the diaphragm upon vibration thereof, and a housing secured to said nozzle and disposed above said diaphragm for holding the diaphragm on said seat, said diaphragm being loosely clamped between said seat and said housing to permit passage of air therebetween, and there being vent openings disposed outwardly of said seat to permit escape of air that passes between said diaphragm, said seat and said housing.

2. A toy of the character described comprising a tube having a lateral opening, a nozzle in said opening having an outlet communicating with the interior of said tube and formed with an annular seat surrounding said outlet, a diaphragm mounted on said seat and overlying the outlet to be vibrated by pulsating air currents in said tube, an object on and unconnected with said diaphragm for free movement relatively to the diaphragm upon vibration thereof, and a transparent housing secured to said nozzle and disposed above said diaphragm for holding the diaphragm on said seat, said housing enclosing but being unconnected with said object for retaining the object in operative relation to said diaphragm, said diaphragm being loosely clamped between said seat and said housing to permit passage of air therebetween, and there being vent openings disposed outwardly of said seat to permit escape of air that passes between said diaphragm, said seat and said housing.

KERMIT GRAETZ.