April 16, 1957 A. A. ANTHONY 2,788,696

XYLOPHONE ENCLOSED IN FIGURE

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Fig. 1

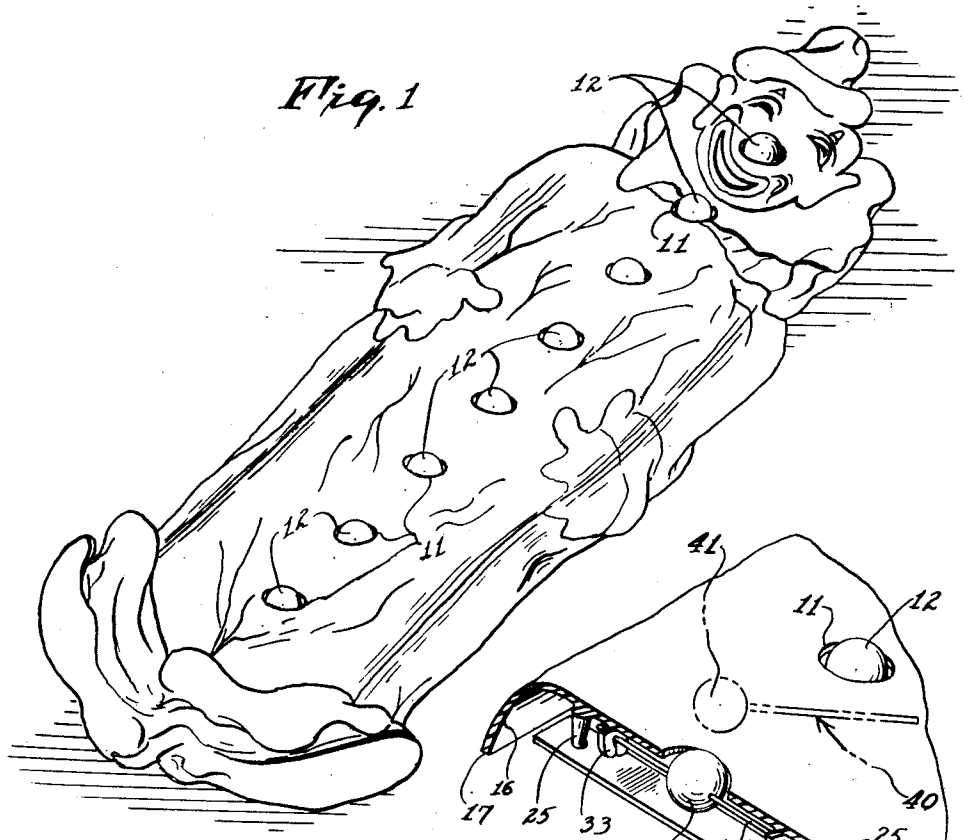
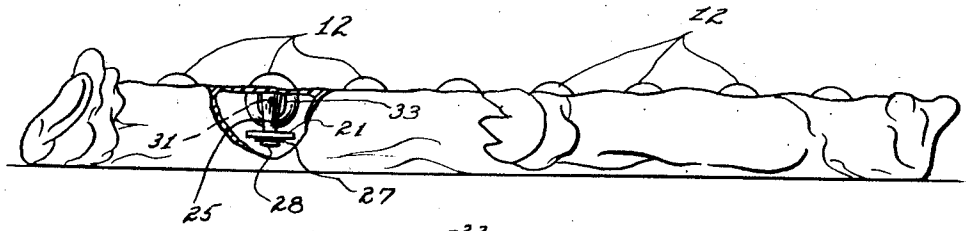


Fig. 3

Fig. 2



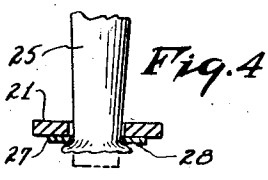


Fig. 4

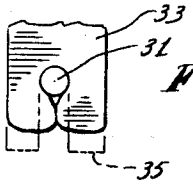


Fig. 5

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XYLOPHONE ENCLOSED IN FIGURE

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7 Claims. (Cl. 84—402)

This invention relates to toys, and more especially to a novelty xylophone.

It is an object of the invention to provide a figure with a plurality of buttons, or other prominent features which are movable and which operate to transmit blows to the plates of a xylophone. By striking the different buttons in the proper sequence, with a mallet, a child can play tunes on the xylophone.

Another object of the invention is to provide a xylophone, of the character indicated, in which the figure is a molded object with an open bottom and with the xylophone plates, hammers and other parts supported from bosses which are an integral part of the figure. This construction reduces the number of parts required for the invention, makes it more convenient to assemble, and thus reduces the cost of manufacture.

Other objects, features and advantages of the invention will appear or be pointed out as the description proceeds.

In the drawing, forming a part hereof, in which like reference characters indicate corresponding parts in all the views;

Figure 1 is a top view of a figure having buttons which serve as hammers for striking the plates of a xylophone concealed within the figure;

Figure 2 is a side view of the structure shown in Figure 1;

Figure 3 is a perspective view, broken away and partly in section, showing the construction inside of the figure; and

Figures 4 and 5 are detail views showing the way in which the xylophone plates and the hammer supports, respectively, are held in place.

The invention is shown with a clown **10** as the figure within which the xylophone is concealed. There is a row of holes **11** extending down the center of the clown. The first hole **11** is located at the clown's nose, and all of the other holes **11** are located in the positions of the buttons of the clown's suit. There are hammer elements **12** located within the figure of the clown, and each of these hammer elements projects part way through one of the holes **11**. Thus, one of the hammer elements **12** forms a nose for the clown, and the other hammer elements **12** form the buttons of the suit. In the construction illustrated, the hammer elements **12** are balls, and preferably wooden balls.

The figure of the clown is hollow, and is made with a raised body portion **15** that merges into downwardly extending side walls **16** having bottom edge faces **17** which rest on a table or other support on which the figure is placed.

Within the figure there are xylophone plates **21**; and one of these plates **21** is located under each of the hammer elements **12**. The hammer elements **12** are supported at a small distance above the plates **21**, and when the hammer elements are struck with a mallet, they move into contact with the plates **21** to sound the musical notes which the plates make when they vibrate. There are preferably

eight plates **21** so that the toy can be used to play a full octave.

Figure 3 shows the way in which the plates **21** and hammer elements **12** can be supported within the figure and entirely by integral portions extending down from the top wall or body portion **15**.

There are projections **25** located near the walls **16** and extending downwardly from the top wall **15** for a distance substantially less than the height of the top wall **15** above the bottom edges **17**. These projections **25** extend through openings **26** in the xylophone plates **21**; and there is a soft washer **27**, such as a felt washer (Figure 4), on which the plate **21** rests. The washer **27** is supported by a spread end **28** of the projection **25**.

When the figure is originally molded, each of the projection **25** has an end which extends downwardly as shown by the dotted lines in Figure 4. After the plate **21** and washer **27** have been placed on the projection **25**, a hot tool is applied to the end of the projection to soften and spread the end to the contour shown in Figure 4. This is the equivalent of a rivet head for preventing the washer **27** and plate **21** from coming off the projection **25**. The assembly is preferably made with the figure turned upside down so that the lower, free end of the projection **25** is uppermost, and the plate **21** and washer **27** drop away from the end which can be riveted without danger of harming the felt washer by the heat.

Referring again to Figure 3, each hammer element **12** is supported by a resilient dowel **31** to which the hammer element **12** is rigidly connected. The opposite end portions of each dowel **31** extend through projections such as lugs **33**, which are located inward of the projections **25**, and which are shorter than the projections **25**. These lugs **33** are preferably of one piece construction with the molded figure.

There are recesses **35** (Figure 5) in the lower end faces of the lugs **33** for receiving the end portions of the dowel **31**. When the toy is assembled, the molded figure is placed upside down, and the dowel **31** is placed in the recesses **35**. A hot tool is then applied to the lower end of each lug **33** to soften and distort the bottom portion of the lug into the full line positions shown in Figure 5. This secures the dowel **31** in place and prevents movement of the dowel with respect to the lug **33** either axially or radially.

When the toy is being assembled, the hammer element **12** is centered with respect to the adjacent hole **11** before the lugs **33** are deformed into position to clamp the dowel **31** against further movement. The hammer element **12** is thus held in its centered position, with respect to the hole **11**, and at a pre-determined distance above the xylophone plate **21**.

A mallet **40**, shown in dot-and-dash lines in Figure 3, has a head **41**, which is preferably made of rubber, and this head is used to strike the hammer elements **12**. A wooden mallet, such as used for playing ordinary xylophones, is not suitable with this invention because of the noise made by a wooden mallet when hit against the wooden hammer elements **12**.

When each of the hammer elements **12** is struck by the mallet **40**, the dowel **31** bends enough to allow the hammer elements **12** to strike a sharp blow against the xylophone plate **21**, and the resilience of the dowel **31** pulls the hammer element **12** away from the plate **21** quickly so as not to damp the vibration of the plate.

With this construction, the xylophone is easier to play than a conventional xylophone because it is not essential for the child to raise the mallet instantly from the hammer elements **12**. The momentum of the mallet **40** depresses the hammer elements **12** into contact with the xylophone plates, but the dowels **31** are stiff enough to

spring back and lift the hammer elements **12** from the plates **21** even though the mallet **40** remains in contact with the hammer elements **12**. With a conventional xylophone, the clarity of the notes is destroyed if the child does not raise the mallet out of contact with the plates immediately after striking the plates. In addition to the novel appearance of the xylophone of this invention, therefore, the construction provides a toy musical instrument which a child can play well with less dexterity and experience.

The preferred embodiment of the invention has been illustrated and described, but changes and modifications can be made without departing from the invention as defined in the claims.

I claim as my invention:

1. A toy musical instrument including a shell having an open bottom and a top wall with a row of openings therein, a xylophone comprising a plurality of different plates located within the shell with a different plate under each of the openings, a hammer element located in the shell above each of the xylophone plates and extending upwardly into the opening and substantially filling the cross section of the opening, resilient means holding each of the hammer elements spaced from the xylophone plate beneath it, the resilient means being connected to the inside of the shell and having sufficient yield to permit the hammer element to move into contact with the xylophone plate when the top of the hammer element is struck with a mallet which is used for playing the musical instrument.

2. A toy musical instrument including a hollow shell open at the bottom and having top and side walls shaped to represent a figure dressed in a costume having a row of buttons extending along the longitudinal length of the shell, each of the buttons consisting of a separate hammer element located within the shell and extending part way through an opening in the top of the shell and substantially filling the opening, resilient means connected to the inside of the shell for holding the hammer elements in position, a xylophone located within the shell and having separate plates located under the respective hammer elements that form the buttons of the figure, each xylophone plate being located at a slight distance below the hammer element so that the xylophone can be played by selectively striking different buttons of the costume.

3. The toy musical instrument described in claim 2 and in which there are supporting means for each xylophone plate extending inwardly from the inside surface of the top of the shell.

4. The toy musical instrument described in claim 2 and in which the resilient means are held by supports extending inwardly from the inner surface of the shell.

5. A toy musical instrument comprising a hollow shell having a row of openings through a top surface thereof, xylophone plates located within the shell with each of the xylophone plates located under a different opening in the shell, a plurality of hammer elements each of which is located above one of the xylophone plates, each of the hammer elements being of limited vertical extent and having at least the greater part of its vertical height located below the top surface of the shell in which the openings are located, and resilient means supported from the shell and holding the respective hammer elements spaced from the plates but in position to contact with the plates when the surfaces of the hammer elements, which are exposed through said openings, are struck with a mallet.

6. The toy musical instrument described in claim 5 and in which the shell is shaped to represent a clown having a costume with large buttons thereon, and the openings through the shell are at the locations of the buttons and the nose of the clown, and the hammer elements exposed through said openings represent the buttons and nose of the clown.

7. A toy musical instrument comprising an open-bottom shell shaped to represent a figure dressed in a costume having a row of buttons, an opening through a top wall of the shell at the intended location of each button, a hammer element projecting upwardly into each of the openings and representing the button at that opening, a different xylophone plate under each of the hammer elements, said hammer elements being located within the shell and having only a portion of their vertical extent projecting into the openings, and resilient means supported from the shell and holding the respective hammer elements spaced from the plates but in position for each hammer element to contact with the plate beneath it when the resilient means yields in response to force against the hammer elements from above.

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