Feb. 14, 1956 D. A. SEAVER 2,734,309

SOUND MAKER

Filed Dec. 12, 1952

Fig. 1

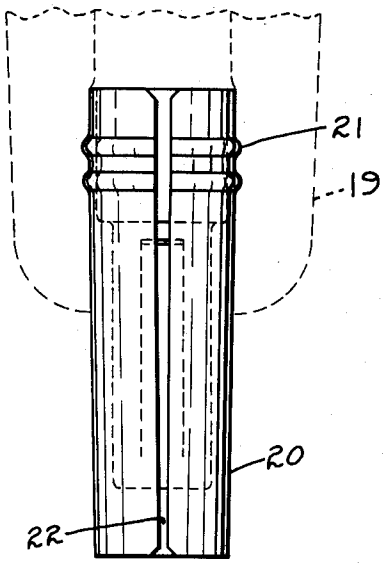


Fig. 2

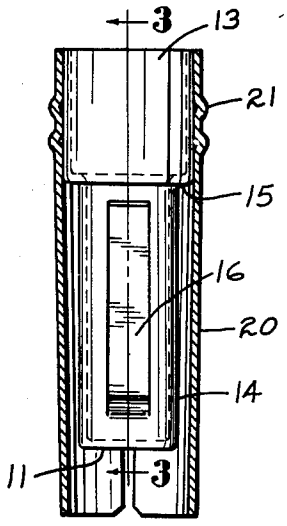


Fig. 3

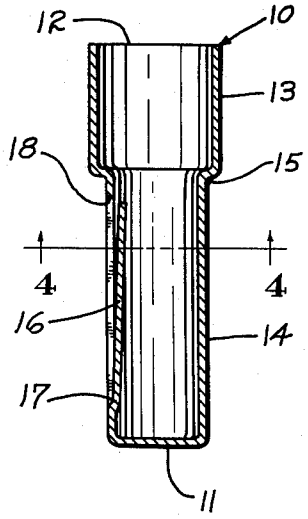
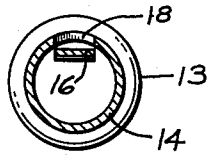


Fig. 4



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2,734,309

SOUND MAKER

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Application December 12, 1952, Serial No. 325,677

3 Claims. (Cl. 46—180)

This invention relates to sound makers particularly useful for squeezable rubber toys.

The purpose of this invention is to provide an improved construction of such toy sound makers, consisting essentially of only one part, which part is capable of being made upon well known and commonly used machines in the eyelet or drawn shell trade. In this respect it is a decided improvement over the prior art. Preferably, though not necessarily, a second member surrounds the one-piece sound maker to serve as a convenient means for mounting in a hole of a rubber-like toy and for protecting the sound-making reed.

Other objects and advantages may hereinafter appear from the description and in the drawing which illustrates the preferred embodiment of my invention.

Fig. 1 shows the sound maker in dotted outline fitted into a surrounding mounting and protective member shown in elevation and illustrates the manner in which the latter is fitted into a hole in a toy, a portion of which is shown in dotted lines.

Fig. 2 is a cross sectional view through the protective member and the assembled member in full elevation.

Fig. 3 is a vertical cross section through the sound maker itself on the center line 3—3 of Fig. 2, and

Fig. 4 is a horizontal cross section on line 4—4 of Fig. 3.

The noise maker consists essentially of a double diameter tubular drawn shell **10** having a closed end **11** and an open end **12**. The open end **12** is formed as the large diameter portion **13** of the shell **10** and a smaller diameter portion **14** extending all the way from the large diameter portion **13** to the closed end **11** with a connecting shoulder **15** therebetween. This member can be very conveniently manufactured on relatively simple and well known machines in the eyelet and drawn shell trade.

A relatively narrow tongue **16** is slitted out of the side wall of the small diameter portion **14** and integrally joined thereto by a relatively small offset section or a reverse bend **17** adjacent the closed end **11**. By offsetting the tongue **16** a slot **18** is provided in the small portion side wall **14** and the longitudinal edges of the tongue are cleared from the edges of the slot **18** to allow for an easier freedom of movement. In the slitting operation the tongue is also preferably flattened in its transverse direction. As will be understood by those skilled in the art if the tubular shell is made on an eyelet machine, the tongue can be slitted and flattened in the same machine. This tongue as seen in Fig. 3 extends into the hollow interior of the shell at a slight angle sufficiently to constitute a reed which will vibrate and produce sound when air is blown through the open end **12**; since the other end **11** of the shell is closed air escapes only by the reed **16** and through opening **18**.

While in some instances this one-piece sound maker could be attached directly to the toy, indicated in dotted lines at **19**, I preferably use a second outer or casing member **20** which may be formed up from a flat blank and fits tightly around the large diameter portion **13** and also extends beyond the closed end **11** of the smaller diameter portion **14** so as to protect the sound-maker reed **16** itself from displacement or injury. Preferably this outer member **20** has circumferential ribs **21** which help to hold the device in place and conveniently this outer member has a slit **22** which may extend for its entire length so that the noise maker can be assembled into it without requiring close tolerances.

As a result of my invention it will now be clear that I have provided an effective sound-making device for squeezable toys or the like which because of its ingenious construction out of only one part, is very economical to make. In cases where the added advantages of the mounting and protecting member are desired the assembly can be made out of only two parts. Because of the need to produce such devices in large quantities to make them available to the public at the smallest cost, my simplified construction represents an important difference over the prior art.

What I claim is:

1. A sound maker consisting of a one-piece tubular shell closed at one end and open at the other end, a portion of the shell near the open end being of substantially larger diameter than the remainder of the shell, a lengthwise extending tongue slitted out of the smaller diameter portion and integrally joined to the cylindrical wall adjacent to the closed end and having its free end extending into the hollow interior of the shell a sufficient distance so that the tongue serves as a reed to make noise when air is forced through the open end over the tongue, and a mounting device for said tubular shell consisting of a separate shell-like member surrounding the closed end shell, said mounting device being open at both ends and fitting tightly around said large diameter portion but being spaced from the small diameter portion of said tubular shell to provide a chamber to permit air to flow past said reed through said mounting device.

2. A sound maker as defined in claim 1 wherein said tongue is offset inwardly adjacent its point of attachment to the smaller diameter portion of said shell and sufficiently to clear the side edges of the tongue to permit substantial freedom of said tongue relative to the side edges of the shell throughout the length of the tongue.

3. A sound maker as defined in claim 1 wherein said tongue is offset inwardly adjacent its point of attachment to the smaller diameter portion of said shell and sufficiently to clear the side edges of the tongue to permit substantial freedom of said tongue relative to the side edges of the shell throughout the length of the tongue and wherein the tongue is flat in its transverse section.

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