

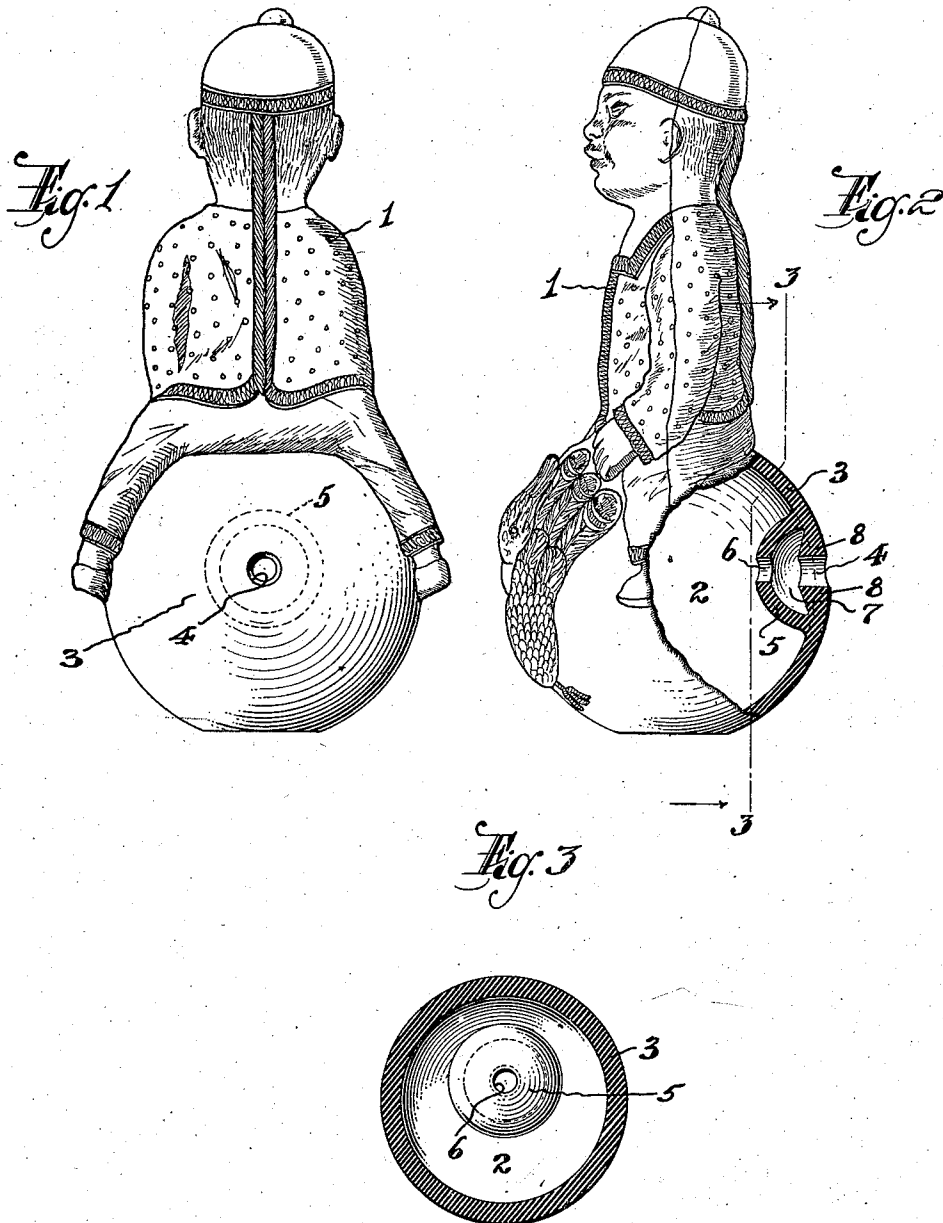
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F. J. MAYWALD

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COMBINED HOLLOW RUBBER TOY AND SOUND EMISSION DEVICE

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INVENTOR.
Frederick J. Maywald,
BY
Frankel and Richards,
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK J. MAYWALD, OF RUTHERFORD, NEW JERSEY.

COMBINED HOLLOW RUBBER TOY AND SOUND EMISSION DEVICE.

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This invention relates, generally, to improvements in rubber toys for children; and the invention has reference, more particularly, to that type of rubber toy which comprises a compressible hollow body providing an interior air chamber which is further provided, in the wall surrounding the same, with an aperture with which is associated a sound emission means or whistle adapted to be operated when the hollow body is compressed to force the air from the interior chamber through said sound emission means.

Heretofore, it has been the practice, in the manufacture of toys of the character above described, to place within the aperture, leading from the interior air chamber of the toy, a metallic whistle element, usually possessing front and rear annular marginal flanges between which the marginal portions of the wall of the toy surrounding the aperture were entered, thus hold the whistle in place. It has frequently been found, however, that such an arrangement is a source of danger to children using the toy, for the reason that the fastening of the whistle by such means is not secure, and as a consequence the metallic whistle element is pulled away, or separated from the toy and thus removed out of the aperture by the child, and then the child's natural proclivities, especially in the case of very small children, induce it to place the metallic whistle element in its mouth, with the disastrous result that the same is likely to slip down into the child's throat and lodging there induces choking and quite frequently suffocation. It is the object of this invention to provide a toy of the kind described in which such easily displaced and therefore dangerous metallic sound emitting devices or whistles are eliminated, and a novel permanently built in and substantially integral, and therefore non-removable, sound emitting device or whistle element is embodied in the structure of hollow rubber toys of the class here involved.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a rear elevation of a hollow rubber toy provided with the novel sound emitting device or whistle, made according to and embodying the principles of this invention; Figure 2 is a side elevation of the same, a portion of the hollow body of the toy

being broken away to show the novel sound emitting device or whistle in vertical section; and Figure 3 is a transverse vertical section, taken on line 3—3 in said Figure 2.

Similar characters of reference are employed in all of the hereinabove described views, to indicate corresponding parts.

Referring now to said drawings, the reference character 1, indicates a rubber toy, which may be molded in any desired fanciful form likely to be attractive to children. The toy thus provided is hollow to provide an interior air chamber 2. The material out of which the toy body is made being comparatively soft rubber, the walls are yieldable or compressible, so that by squeezing or pinching the toy, the air in the chamber 2 may be compressed to actuate the novel sound emitting device or whistle with which the toy is provided. The said novel sound emitting device or whistle is constructed in connection with a suitable portion 3 of the main wall of the toy, in which portion 3 of said main wall is provided with an aperture or opening 4. Connected with the said main wall 3, preferably so as to join the inner side thereof, is a secondary wall or partition member 5, preferably of concavo-convex form, whereby its marginal portions will join with the main wall 3 so as to surround said aperture or opening 4. Said secondary wall or partition member 5 is also made of rubber so as to be permanently united with the main wall 3 where it joins or abuts the latter. Said secondary wall or partition member 5 is provided with an aperture or opening 6 which is opposed to or aligned with the aperture or opening 4 of the main wall 3. It will be understood that the above described arrangement of secondary wall or partition member 5, will thus have its central portion spaced somewhat away from the main wall 3, to thus provide intermediate the two, and thus intermediate the opposed apertures or openings 4 and 6 a whistle chamber 7. It is also preferable, but not absolutely essential, that the portion of said main wall 3 extending between the juncture of the secondary wall or partition member 5 therewith and the aperture or opening 4 be thickened toward the latter, as shown at 8 in Figure 2; the advantage of such construction being that it obviates the tendency of the portion of the main wall

bounding the whistle chamber 7 to collapse inwardly, whereby the latter chamber might be unduly diminished.

The operation of the novel structure above described is as follows:—

When the walls of the toy are squeezed or pinched so as to compress the same, the air in the chamber 2 will be driven outwardly therefrom to pass through the aperture or opening 6 into the whistle chamber 7 and thence escape through the aperture or opening 4. The vibration of the air in the whistle chamber 7 will cause a shrill whistling sound to be emitted in the manner usual to whistle structures operating on the principles here involved. When the squeezing pressure is relaxed, the natural resiliency of the rubber walls of the toy causes the latter to return to normal expanded condition, whereby air is sucked through the aperture or opening 4, whistle chamber 7, and aperture or opening 6 back into the interior air chamber 2 of the toy body, thus again causing a sounding of the whistle structure.

From the above description of my invention, it will be quite evident that the whistle element is built into the toy as a fixed and non-removable part thereof, and consequently entails none of the dangers above referred to which are attendant upon the use of separate metallic whistle structures infirmly connected in operative assembled relation to the toy. As a consequence, my novel construction not only produces a toy safe for babies and small children to possess, but also a toy which is indestructible as to its whistling function in the hands of such small children.

Some changes as to location and arrangement of the parts making up the novel features of the toy may be made, without departing from the scope of this invention. Hence, I do not limit myself to the exact showing of the drawing or the exact details of the parts and arrangements thereof as described in the foregoing specification.

I claim:—

A hollow rubber toy providing an interior air chamber enclosed by the main wall of said toy, a concavo-convex secondary wall springing from and permanently connected with the interior side of said main wall to provide an intermediate whistle chamber, said secondary wall having a central aperture affording communication between said air chamber and said whistle chamber, said main wall having an aperture affording communication between said whistle chamber and the atmosphere, the substantially semi-spherical arch of said concavo-convex secondary wall being adapted to support the same against collapse relative to said main wall when the toy is compressed to force air outwardly through the whistle chamber, and said portion of the main wall intermediate its aperture and the juncture of said secondary wall being of increasing thickness toward said aperture to prevent inward collapse of said main wall toward said secondary wall when the toy is expanded to draw air inwardly through the whistle chamber.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 14th day of June, 1923.

FREDERICK J. MAYWALD.