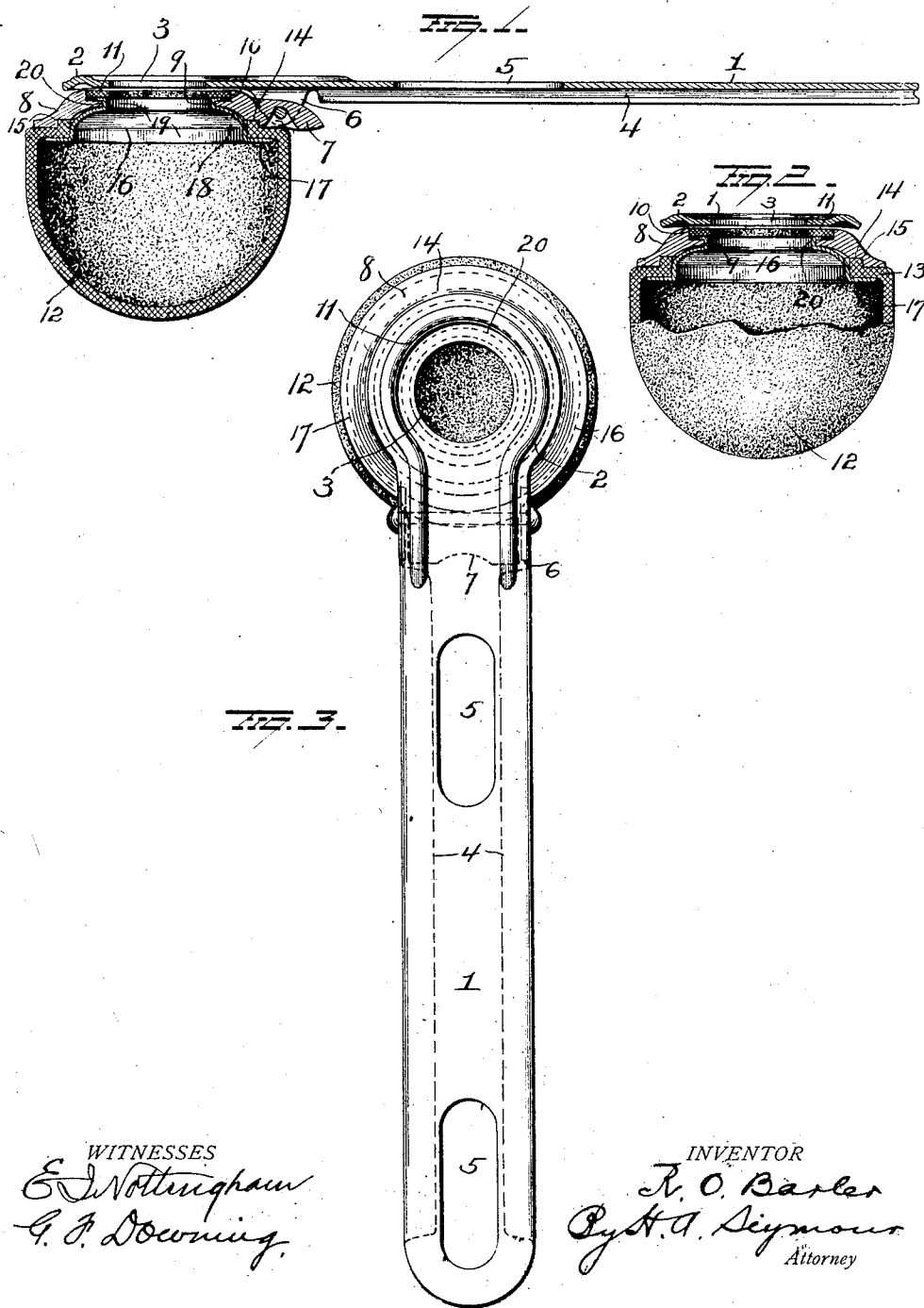


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SOUNDING TOY.
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986,892.

Patented Mar. 14, 1911.



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RICHARD O. BARLER, OF CHICAGO, ILLINOIS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RICHARD O. BARLER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sounding Toys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in sounding toys and more particularly to that class in which a paper diaphragm is ruptured by the sudden compression of air,—the object of the invention being to provide simple and efficient means for connecting the collapsible bulb with the metal parts of the device in an efficient and substantial manner without the use of screws or other devices to penetrate the wall of said bulb.

A further object is to so construct the device that the compression of air when the device is operated will assist in causing a tight seal between the paper to be ruptured and the open end of the bulb.

With these and other objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a sounding toy embodying my improvements, Fig. 2 is a transverse sectional view, and Fig. 3 is a plan view.

1 represents the handle or body portion of the device provided at one end with a head 2 having a circular opening 3 therein. The body portion of the device is made elongated in form and provided at its side edges with flanges bent to form guides 4 for a strip of paper. The portion 1 of the device is provided with one or more elongated slots 5 to permit the operator to grasp the paper strip and feed it forwardly under the opening in the head 2. In rear of the head 2, depending lugs 6 are provided and between these lugs, and arm 7 on a convex metal plate 8 is pivotally connected. The arm 7 projects a sufficient distance rearwardly of its pivotal support to engage the forward ends of the guides 4 and thus limit the metal plate 8 relatively to the head 2. The convex metal plate 8 is provided with a central opening 9 and around this opening, the upper face of the plate 8 is made with

an annular recess 10 in which a rubber washer or gasket 11 is seated. The opening in the washer 11 is appreciably less in diameter than the opening in the plate 8 so that said washer will project inwardly over the edge of said opening in the plate 8 for a purpose which will be hereinafter explained.

12 represents a collapsible bulb which is approximately hemi-spherical in form and at its open top is provided an inwardly projecting annular flange 13, from the inner end of which latter an annular lip 14 projects upwardly. The annular flange of the bulb 12 is seated against the metal plate 8 and the annular lip 14 on the bulb is disposed within the peripheral portion of the metal plate and seated against a shoulder 15 in said plate. The collapsible bulb is connected with the cast metal plate 8 by means of a coupling device 16 which may be conveniently made of sheet metal and provided with a peripheral flange 17 to lie flat against the under face of the annular flange 13 of the bulb. The coupling member 16 is made with a central convex portion 18 to enter the opening in the bulb surrounded by the annular lip 14. The convex portion of the coupling member 16 is provided with a central opening 19 and around this opening, an annular flange 20 is formed. The annular flange 20 on the coupling member is passed through the central opening in the cast metal plate 8 and its upper edge is upset or spun over the wall of the opening in said cast metal plate and thus the bulb is connected securely by means of the coupling member 15 to the cast metal plate 8 without the use of any fastening devices passing through the wall of the collapsible bulb.

The paper strip is fed forwardly so that a portion thereof will become disposed between the head 2 of the handle or body portion 1 and the cast metal plate 8, or more properly speaking between the head 2 and the rubber gasket or washer 11 carried by said plate 8. When the rubber bulb is collapsed by bringing it into forcible contact with some object, the paper strip will be tightly clamped between the head 2 and the rubber washer 11 on the plate 8 and the air compressed within the bulb will cause the rupture of the paper and a loud sound will result. When the air is compressed within the bulb, air pressure will be exerted against the portion of the washer 11 which projects over a portion of the opening in

plate 8 and the air pressure will serve to force this inwardly projecting portion of the washer 11 upwardly against the paper and press the latter tightly against the under face of the head 2 around the opening in the latter. An air tight seal is thus effected between the head 2 and the bulb and the full sounding effect upon the rupture of the paper will be attained.

10 Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is,—

1. In a device of the character described, the combination with a handle or body member provided with an opening near one end and a plate hinged to said handle or body member and provided with an opening to aline with the opening in the handle or body member, of a collapsible bulb having an opening, and a coupling member disposed within said bulb and connected with the hinged plate, said coupling member having a central opening.

2. In a device of the character described, the combination with a handle or body portion provided near one end with an opening, a plate hinged to the handle or body portion near said opening therein and provided with a central opening, and a collapsible bulb provided at its open end with an inwardly projecting flange, of a coupling member having a flange seated against the under face of the flange of the bulb, said coupling member provided centrally with an opening and with a flange surrounding said opening, said last mentioned flange being secured to the plate hinged to the handle or body portion.

3. In a device of the character described, the combination with a handle or body portion provided near one end with an opening, a metal plate hinged to the handle or body portion near the opening therein and provided with a central opening, and a collapsible bulb provided at its open end with an inwardly projecting annular flange, of a metal coupling member provided with a convex portion to enter the opening formed by the annular flange of the bulb, said coupling member having an annular flange within the bulb and bearing against the under face of the flange of the latter, the central portion of said coupling member having an opening and an annular flange surrounding said opening and spun over the wall of the opening in the plate which is hinged to the handle or body member.

4. In a device of the character described, the combination with a handle or body por-

tion provided near one end with an opening, 60 of a plate hinged to said handle or body portion and provided with an opening to aline with the opening in the handle or body portion, said hinged plate having an annular recess surrounding the opening therein, a 65 yielding washer seated in said annular recess and projecting inwardly beyond the wall of the opening in said hinged plate, and a collapsible bulb connected with said hinged plate and communicating with the 70 opening therein.

5. In a device of the character described, the combination with a handle or body portion, provided near one end with an opening, 75 of a convexed plate hinged to the handle or body portion and provided with a central opening in line with the opening in the handle or body portion, a yielding washer disposed upon said hinged plate, an approximately hemi-spherical collapsible bulb provided with an inwardly projecting annular flange, a sheet metal coupling member having an annular flange disposed within the bulb under the annular flange of the latter, said coupling member having a central portion provided with an opening surrounded 85 by an annular flange, said last mentioned annular flange of the coupling member projecting through the opening in the hinged plate and secured to the latter, and an annular lip at the inner edge of the flange on the bulb and seated in said convexed hinged plate. 90

6. In a device of the character described, the combination with a handle member provided with a part having an opening, of a plate hinged to said handle member and having an opening, said plate also having a recess surrounding the opening therein, a washer in said recess, a collapsible bulb 100 having an opening, and a coupling member having a part fitted into said bulb and a part secured to the hinged plate.

7. In a device of the character described, the combination with a member having an opening, of an annular plate hinged to said member, a collapsible bulb having an opening, and a coupling member having a part fitted within said bulb and a part secured to said annular hinged plate. 110

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

RICHARD O. BARLER.

Witnesses:

H. E. BULLEN,
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