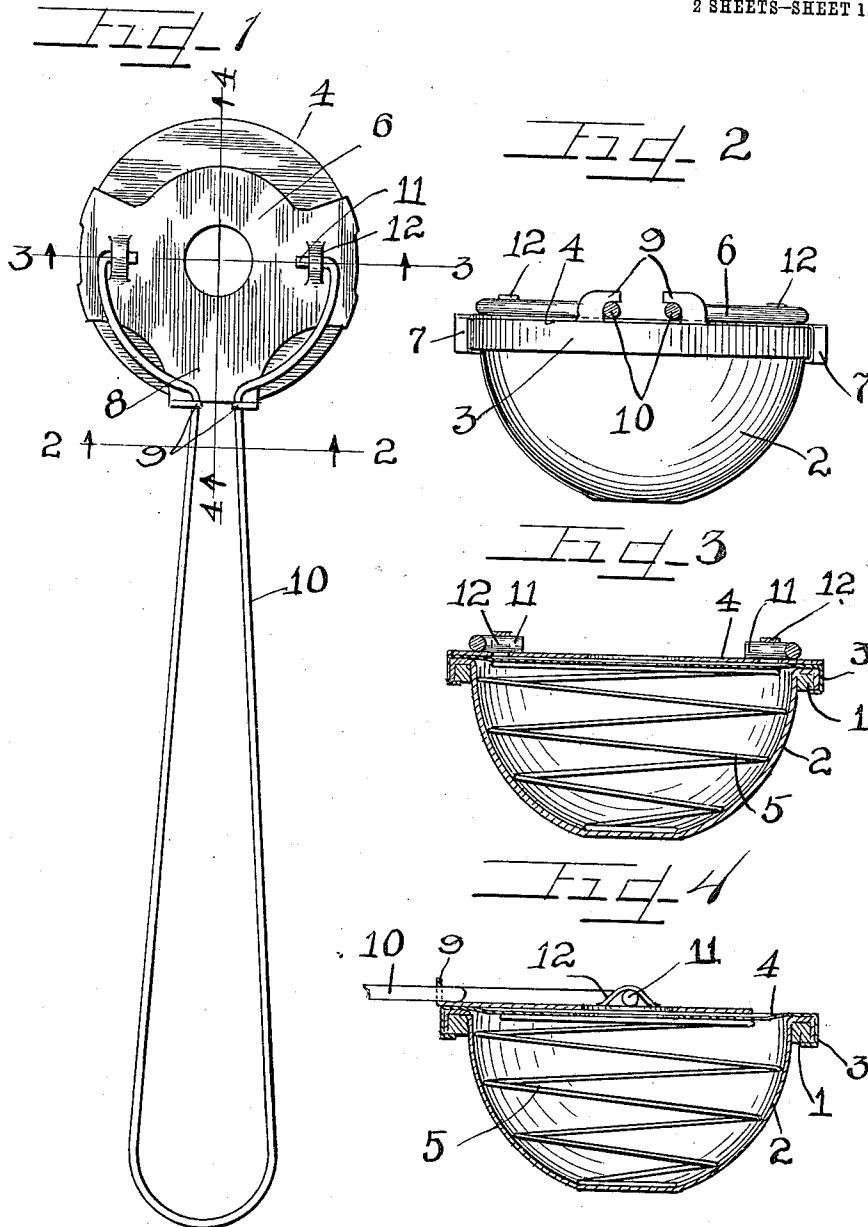


M. THOMSEN.
PNEUMATIC TORPEDO.
APPLICATION FILED JAN. 27, 1911.

1,043,880.

Patented Nov. 12, 1912.

2 SHEETS-SHEET 1.



WITNESSES
J. W. Angell.
Charles W. Filloz.

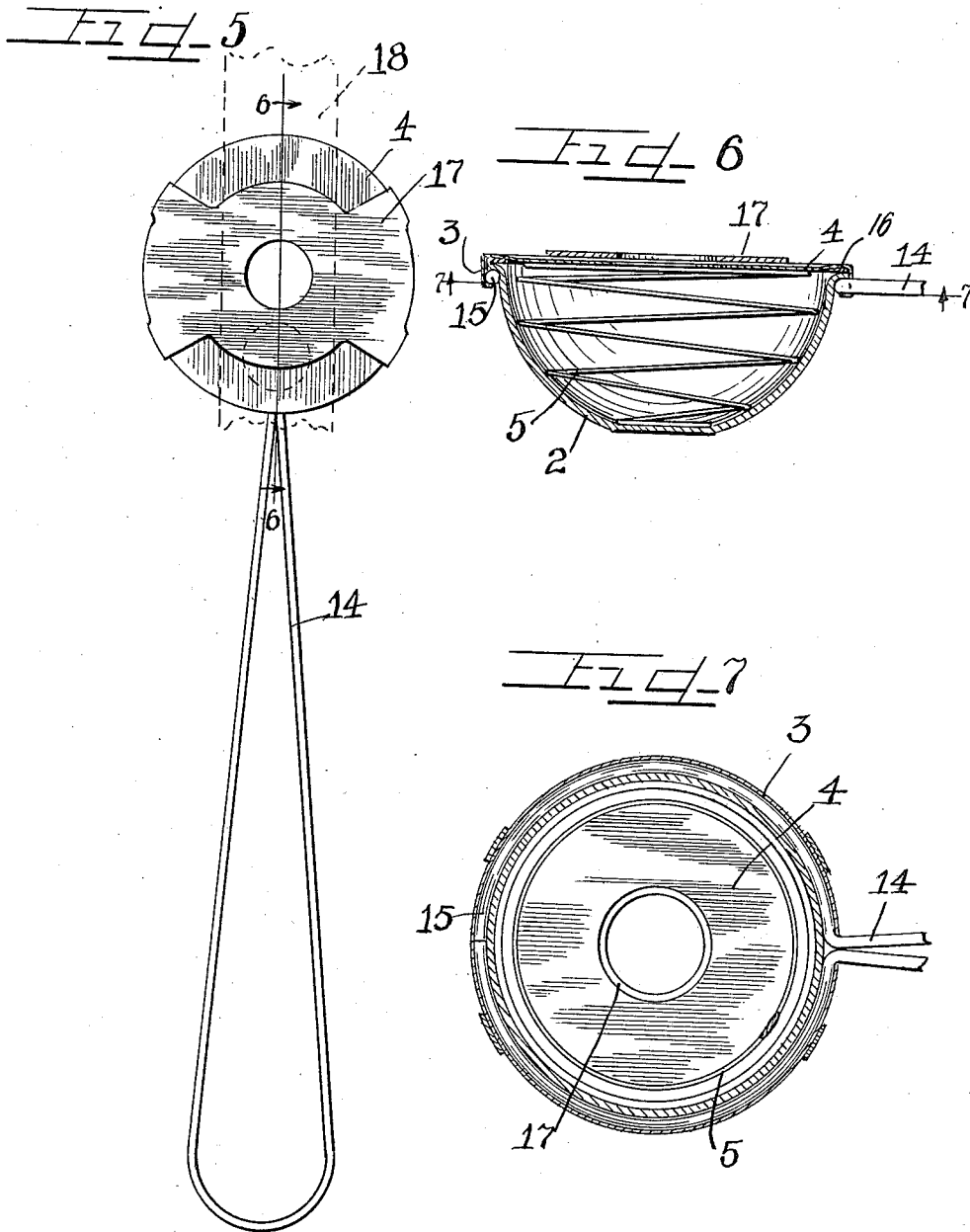
IN WITNESS WHEREOF
Max Thomsen
by Charles W. Filloz
Att'y.

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J. H. Angell
Charles W. Fille
by

INVENTOR

Max Thomsen
Charles W. Fille

ATTY

UNITED STATES PATENT OFFICE.

MAX THOMSEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO KOHLER DIE & SPECIALTY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PNEUMATIC TORPEDO.

1,043,880.

Specification of Letters Patent.

Patented Nov. 12, 1912.

Application filed January 27, 1911. Serial No. 605,053.

To all whom it may concern:

Be it known that I, MAX THOMSEN, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pneumatic Torpedoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numbers of reference marked thereon, which form a part of this specification.

This invention relates to toys of that class in which a sharp noise or concussion may be produced with the striking of a blow by the apparatus.

The object of the invention is to afford an exceedingly cheap, simple and durable device, in which ordinary paper may be utilized to confine the air in a collapsible compression chamber, and whereby the sudden compression and the release occasioned by striking on, or with the compression portion of the device, occasions a loud report.

It is an important object of the invention to afford a toy, or an amusement device of such simple construction as to make the same incapable of inflicting any injury whatever upon the user, and also to afford a device in which the material or paper consumed in the operation of the toy may be of the cheapest quality, and may be prepared by the user of the device by simply cutting paper of any kind into strips of suitable width, thus rendering the operation of the toy free from expense.

The invention consists in the matters hereinafter described, and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a top plan view of a device embodying my invention. Fig. 2 is a section on line 2—2 of Fig. 1. Fig. 3 is a section on line 3—3 of Fig. 1. Fig. 4 is a section on line 4—4 of Fig. 1. Fig. 5 is a view similar to Fig. 1, but illustrating a slightly modified connection for the handle with the compression chamber. Fig. 6 is a section on line 6—6 of Fig. 5. Fig. 7 is a horizontal section on line 7—7, Fig. 6.

As shown in the drawings: referring first to Figs. 1 to 4 inclusive: 1, indicates a ring or annular member, as shown, constructed of a substantially rectangular bar or strip

of metal; 2 indicates a bag or concave diaphragm of leather, heavy parchment, or any suitable material, the edges of which are drawn upwardly on the inner side of the ring and over the same, and downwardly on the outer side, and firmly clamped or engaged in place by means of an outwardly turned flange 3, of a cover 4, of thin, resilient metal. Said cover is provided with a circular aperture at its center and fits closely to said ring and is flanged for its entire diameter around the ring and beneath the same to afford a tight joint around the top of the bag or diaphragm. Secured within the bag or diaphragm 2, and pressing oppositely on the bottom of the same and on said cover plate 4, is a coiled spring 5, which acts at all times to hold the diaphragm extended.

6, indicates a relatively stiff and heavy top plate, which, in the form shown in Figs. 1 to 4 inclusive, extends transversely the cover plate 4, and is provided with a circular aperture registering with the aperture therein and at its oppositely directed ends is flanged around and under the ring and flange of the cover plate, said under flanged portions 7, acting to firmly engage the top plate in position.

Extending rearwardly from, and integral with, the top plate, is an extension 8, the edge of which is turned upwardly, centrally slotted, and outwardly notched to afford holding claws 9. A handle is secured to the device comprising a wire or rod 10, bent to afford a loop to fit in the hand with the ends of the wire or rod bent outwardly to extend around the top near the periphery of the top plate to about the middle of the same, and having intumed ends 11, which engage in straps or loops 12, struck up from, and integral with the top plate, as shown in Fig. 6. The handle is applied by inserting the ends or extremities of said wire or rod in the loops or straps therefor, and then springing the sides of the handle inwardly to engage between the hooks 9, on the rear extension 8, of the top plate, thus releasably (but firmly) engaging the handle in place.

The construction illustrated in Figs. 5 to 7 inclusive, is substantially the same as that before described, with the exception that the handle is shown as permanently attached to the device and forming the ring

which comprises the frame of the device. For this purpose, as shown, the handle 14, constructed of wire bent to afford a looped handle, as before described, is bent at its ends to afford the frame ring 15. The bag or diaphragm 2, is drawn at its edges upwardly over, and partly around the ring, and a flat and relatively heavy washer 16, having an external diameter equal to that of the ring 15, is laid on the bag, firmly jamming the same on the ring, and the cover plate 4, is pressed thereon and flanged around the washer and ring and beneath the latter to firmly engage the same in place, and rigidly clamp the margins of the bag or diaphragm from withdrawal from beneath the ring and washer. Said cover plate is apertured centrally, as before described, and secured thereon is a top plate 17, corresponding with the top plate 6, in all respects except that the tail section 8, and the loops 12, are omitted, inasmuch as the handle is differently secured to the device than is shown in Fig. 1. The spring 5, fits in and conforms substantially with the interior of the bag or diaphragm, as before described, and bears against the cover plate, which is thin, while the top plate is thick and heavy. The top plate may be slightly raised, and the cover plate may be slightly dishd to afford space to insert between the same a strip of any suitable material, as, for instance, a strip of paper 18. The paper may be cut in long strips and drawn between the cover plate and top plate as used, as shown in Fig. 5. In this manner, the device may be operated quite rapidly as it is only necessary to slip the strip along a sufficient distance beneath the top plate to afford an unbroken surface of paper at the aperture, to have the device again loaded and ready for use. Where a long strip is used, any suitable device or a roll may be provided upon the device to hold the paper, or the unused portion may be held in the hand with the handle of the device.

Of course, details of the construction may be varied without departing from the principles of this invention, and I do not purpose limiting the patent to be issued on this application otherwise than necessitated by the prior art.

I claim as my invention:

1. A device of the class described embracing a substantially air-tight bag or diaphragm, a thin centrally apertured cover

plate around the mouth thereof, a heavier top plate engaged over the cover plate and at its ends flanged under the sides of the cover plate having a central aperture therein registering with that in the cover plate, a spring in the bottom of the bag bearing against the cover plate to hold the diaphragm extended, and a handle secured to the device.

2. A device of the class described embracing a substantially air-tight bag, an annular frame around the mouth thereof, a thin cover plate secured over the mouth of the bag and flanged over and around the frame, a heavier top plate engaged over the cover plate and at its ends flanged under the sides of the cover plate, said plates having central registering apertures therein, a coiled spring in the bottom of the bag bearing against the cover plate to hold the bag extended, and a handle secured to the device.

3. A thin metal diaphragm or plate having a central aperture therethrough, a heavier cover plate similarly apertured to register therewith, said plates affording a space therebetween to permit the insertion of a thin sheet such as paper, an air chamber in communication with said aperture, a bag of flexible material such as leather, secured to the margins of the cover plate and affording an air chamber from which said aperture in the cover plate opens, a spring holding said bag normally extended, and a handle secured to the device to permit a blow to be struck therewith.

4. In a device of the class described a ring, a substantially air-tight bag or pouch drawn at its margins within and over the ring, a thin centrally apertured cover plate engaged over the ring and the margins of the bag, a spring bearing against said cover plate and the bottom of the bag to hold the bag distended, a top plate extending transversely of the cover plate and apertured to register therewith, said cover and top plate being sprung apart sufficiently to permit the insertion of a strip such as paper, and a handle attached to the device.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

MAX THOMSEN.

Witnesses:

GEORGE MOORE,

CHARLES W. HILLS, Jr.