A. M. KNAPP.
Toy.

No. 208,102. Patented Sept. 17, 1878.

FIG. 1.

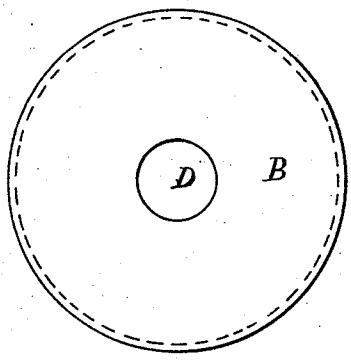
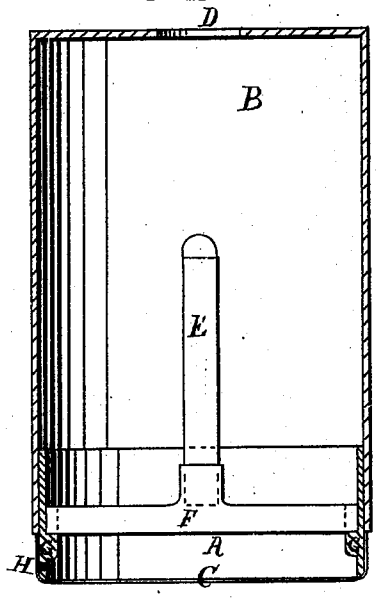


FIG. 2.



WITNESSES.

Simon S. Lapham

Clarence A. Aldrich

INVENTOR.

Albert M. Knapp

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT M. KNAPP, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN TOYS.

Specification forming part of Letters Patent No. **208,102**, dated September 17, 1878; application filed June 24, 1878.

To all whom it may concern:

Be it known that I, ALBERT M. KNAPP, of the city of Providence, in the county of Providence, State of Rhode Island, have invented a new Toy, of which the following is a specification:

The nature of my invention consists in a box or hollow cylinder, having one or more flexible or elastic sides, and also one or more openings communicating with its interior. Said box or cylinder is made in two sections, one part fitting into the other as a cover. Inside of said box is placed, suitably supported, a non-inflammable smoke, gas, or vapor producing substance or material, which is set into action either by fire or by a certain chemical process. When said box is filled with the smoke, gas, or vapor, and its flexible or elastic side or end be quickly compressed or tapped, wreaths or rings of smoke, gas, or vapor will escape through said perforations. The wreaths are more perfect when the sides of the perforations for the escape of the smoke are lubricated. Air injected into said cylinder in sudden puffs will produce wreaths, though in a less perfect manner than by compression of its flexible sides.

Wreaths of various colors can be produced by certain chemical mixtures prepared and inclosed in a suitable receptacle placed inside of said box. A porous non-inflammable substance or material impregnated with certain chemicals affords a simple vehicle for retaining the compounds used to make the different colored wreaths. The article known as "punk" can be used for this purpose. It burns slowly without a flame, and is not easily smothered by its smoke, gas, or vapors. For making the side or end of said box, upon which compression is applied to operate the device, I prefer the use of thin elastic rubber. When thin card-board, wood, or paper is used, a small spiral spring is adjusted inside of the box, the ends of which are placed in contact with the side where compression is made in the act of operating the toy. By this means the flexibility of the sides is secured.

Figure 1—B shows the top part of the box or hollow cylinder. D shows a perforation communicating with the interior of the cylinder through the top B.

Fig. 2—B shows a section of the upper part of the hollow cylinder. A shows a section of the lower part of the same. D shows a perforation corresponding with that shown at D, Fig. 1. C shows a flexible or elastic side, which can be located in any part of the side or end of said box or hollow cylinder A B, and accomplish the object of said device. E shows the smoke, gas, or vapor producing substance or material, and is inclosed within said box or cylinder. F and G G show supports to E. H shows a vent, which can be used, when needed, to supply oxygen for combustion of E.

The support F G may be fastened to or connected with either one or to two sides of the box A B, or connected as follows to the elastic side or base C: Perforate C at its center and insert therein a wooden thimble or plug, so constructed as to receive and retain in position the smoke or vapor producing candle E. Said support is retained in place by the elasticity of the rubber surrounding it, which admits of an easy removal and replacement of the same.

I do not claim to have first originated a device for making rings of smoke, since such have been constructed before from boxes having flexible pasteboard sides. The smoke is usually blown into said box through an opening, through which the rings of smoke issue when the device is operated. Since the supply of smoke is limited to the capacity of the box, it is soon exhausted, and the rings of smoke become less distinct as the working of the toy proceeds. The distance said rings can be thrown from such a device is much less than can be done with the improved one.

A toy used for the purpose herein described, having one or more of its sides or ends constructed of thin elastic rubber, is an improvement over the ordinary method, and by the means of the inclosed support for the smoke or vapor producing material a large supply for the formation of rings or wreaths is secured, since said material, when ignited, can be inclosed in the device, where it will continue to burn and give off smoke until it is entirely consumed.

I claim as my invention and desire to secure by Letters Patent—

The hollow cylinder or box A B, having in side or end one or more perforations, D, in combination with a flexible or an elastic rubber end or side C and support F G for the smoke or vapor producing material E, as herein described, and for the purpose set forth.

Witnesses: ALBERT M. KNAPP.
SIMON S. LAPHAM,
CLARENCE A. ALDRICH.