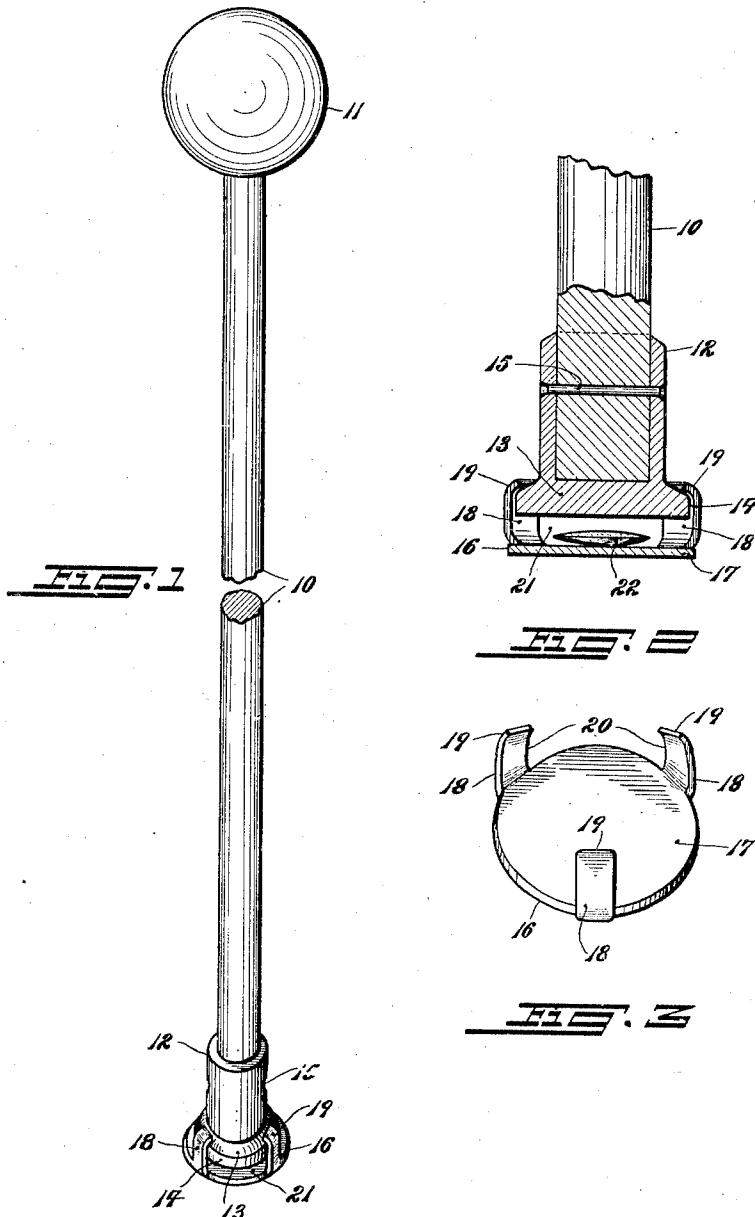


W. P. WOERNER.  
DETONATING DEVICE,  
APPLICATION FILED NOV. 22, 1919.

1,334,826.

Patented Mar. 23, 1920.



WITNESS:

*Alfred T. Bratton*

William P. Woerner  
INVENTOR.

BY  
*Victor J. Evans*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

WILLIAM P. WOERNER, OF LANCASTER, PENNSYLVANIA.

## DETONATING DEVICE.

1,334,826.

Specification of Letters Patent. Patented Mar. 23, 1920.

Application filed November 22, 1919. Serial No. 339,821.

To all whom it may concern:

Be it known that I, WILLIAM P. WOERNER, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented new and useful Improvements in Detonating Devices, of which the following is a specification.

The invention relates to games and toys and has for an object to provide a detonating device for use in exploding cartridges or caps.

The invention comprehends among other features, a detonating device usually provided for the amusement of children for the exploding of caps, the device being particularly adapted for use at celebrations and on holidays for the amusement of children, providing a safe article which can be easily operated and which by reason of its construction and arrangement, avoids the usual danger of the device exploding, when large caps or cartridges containing high explosive charges are used in connection therewith.

Still further the invention comprehends a detonating device or toy which is of a very simple construction and which has the base so arranged that a maximum opening from the explosive chamber is provided, thus allowing the burnt gases to escape, materially helping to effect a loud explosion; the particular arrangement of the base relative to the head obviating any danger of the device exploding due to the concussion resulting from the cap or cartridge, the simple constructional nature of the parts furthermore providing an article which can be very cheaply manufactured.

In the further disclosure of the invention reference is to be had to the accompanying drawings constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which,—

Figure 1 is a perspective view of the device.

Fig. 2 is a vertical sectional view taken through the device showing a cap in position therein, and

Fig. 3 is a perspective view of the base removed from the head.

Referring more particularly to the views the numeral 10 indicates a stick or staff which may have a suitable handle or knob 11 at its upper end, the lower end of the stick

being received in a tubular shank 12, the lower extremity of which terminates in an integral head 13 formed with an annular flange 14, the extremity of the stick 10 being secured in any convenient manner in the shank 12, as for instance by means of a cross pin 15. Loosely depending from the head 13 is a base 16 which is formed of a single piece of material providing a circular disk 65 or flat plate 17 having a plurality of upwardly extending projections 18 which at their upper ends are bent inwardly as at 19 to extend over the flange 14 thus holding the base in engagement with the head, but 70 freely movable relative thereto and normally having the disk 17 thereof spaced from the head.

The projections 18 are comparatively narrow thus forming slots 20 between the projections which slots are of the maximum size to form exits from the exploding chamber 21 which is formed by the base 16 and disk 17.

The usual paper cap or cartridge 22 is 80 adapted to be inserted through one of the slots 20 into the chamber 21 and the device is then struck against a flat surface or pavement causing the head 13 to be projected toward and against the base 16, thus resulting in the explosion of the cap.

By having the particular form of base 16 constructed in the manner set forth, sufficient room is provided by the provision of the slots for the ready insertion of the cap 90 and after the explosion thereof, for the ready removal of the paper part of the cap, the large slots forming ample exits for the burnt gases at the time of the explosion thus preventing any chances of the metallic parts 95 of the device from bursting or breaking away, due to the concussion of the explosion and furthermore resulting in a maximum noise or report when the cap is exploded.

I am well aware that various forms of 100 detonating toys for paper caps have been used theretofore, but in the majority of these instances, the explosive chamber is of a very confined nature, and there is always danger of the explosion breaking away parts of the 105 chamber because of the confinement of the gases in the chamber. It is with the object of obviating all danger of the device exploding, that I have formed the base in the manner set forth, whereby substantially at 110 the time of the explosion and immediately after, the exits from the chamber will be

sufficiently large to permit of the ready escape of the burnt gases and then by tilting the device the remaining paper now a useless part of the cap, will readily drop out 5 from between the head and the base.

Having described my invention, I claim—

1. A detonating device comprising a head, an annular flange formed with the head and a base consisting of a disk and a plurality of 10 projections extending upwardly from the disk and bent over the flange of the head to loosely support the base upon the head, the forming of said projections on said base providing slots bounded by the projections, said 15 slots communicating with the space between the head and the base.

2. In a detonating device the combination with a head and a base, of projections on the base and connecting with the head to form

elongated slots constituting passages communicating with the space between the head and base, said projections being bent around the head for loose contact therewith, with the body of the base normally spaced from the head. 20

3. As a new article of manufacture, a detonating toy comprising a head formed of a single piece of material providing a socket and an annular flange, a stick having an end inserted in the socket and a base in 30 loose engagement with the annular flange of the head, the base being formed of a single piece of flat metal providing a disk and spaced projections bent around the annular flange of the head. 35

In testimony whereof I affix my signature.

WILLIAM P. WOERNER.