Dec. 17, 1940. C. V. SMITH 2,225,510

DETONATING TOY

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Fig. 1.

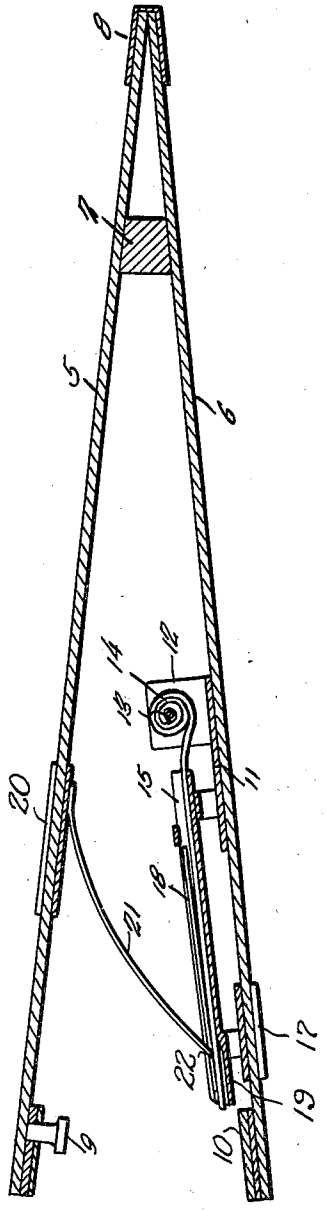


Fig. 2.

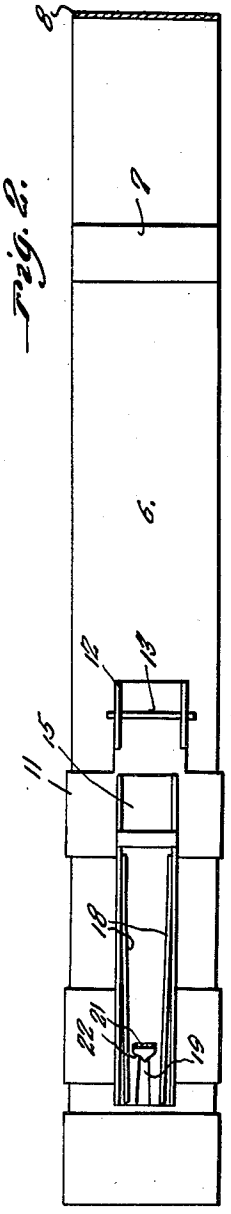
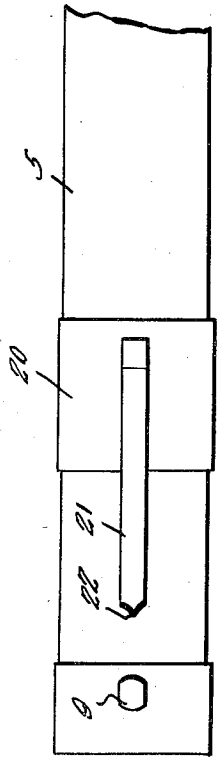


Fig. 3.



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Fig. 4.

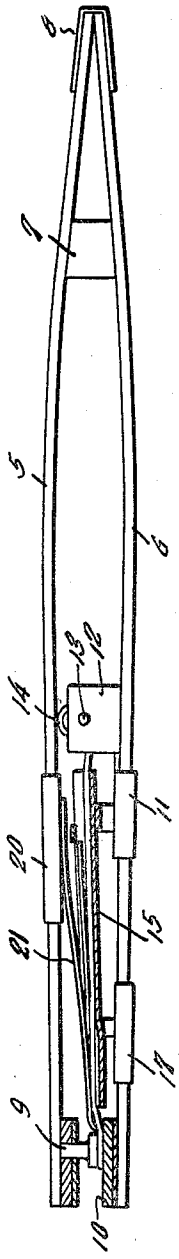


Fig. 5.

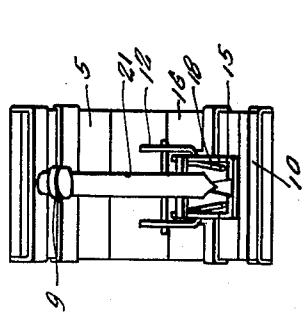


Fig. 6.

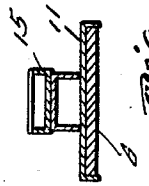
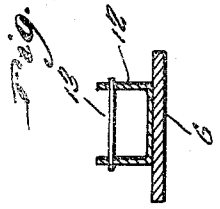


Fig. 7.



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DETONATING TOY

Carlton V. Smith, Coquille, Oreg.

Application August 18, 1939, Serial No. 290,917

4 Claims. (Cl. 46—196)

This invention relates to detonating toys, and has for the primary object the provision of a device of this character wherein caps made up in strip form may be safely supported and automatically fed into firing position as each cap is exploded by the device, so that rapid explosions one after the other may be had if desired and without the danger of premature explosions of the caps which provides an amusing toy that may be safely handled and operated.

With these and other objects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a vertical sectional view illustrating a detonating toy constructed in accordance with my invention.

Figure 2 is a longitudinal sectional view illustrating a magazine holder and feed trough for the caps in strip formation.

Figure 3 is a bottom plan view illustrating a feed spring.

Figure 4 is a side elevation, partly in section, showing the device in firing position.

Figure 5 is an end view showing the device.

Figure 6 is a transverse sectional view illustrating the feed trough.

Figure 7 is a transverse sectional view illustrating the cap strip holder.

Referring in detail to the drawings, the numerals 5 and 6 indicate resilient strips or members supported in converging relation by spacing blocks 7 to which both strips are secured in any well known manner and the converging ends of the strips are joined together and in engagement with each other by a clip 8. The free ends of the strips normally assume a position wherein the free ends will be spaced a considerable distance apart, as shown in Figure 1, and the strip 5 has secured thereto adjacent the free end a striking element 9 while the strip 6 has secured to its free end a striker plate or anvil 10.

A clip 11 is mounted on the strip 6 a selected distance from the anvil 10 and has integral therewith upstanding spaced ears 12 in which is journaled a shaft 13 coacting with the ears 12 in forming a reel for the supporting of caps in strip formation, as shown at 14. Also integral with the clip 11 is a feed trough 15 extending from a point adjacent the ears 12 to a point adjacent the anvil 10 and in a plane slightly above the face of the anvil. The trough 15 includes a bottom wall and upstanding side walls through which the strip of caps is fed by means which will be hereinafter more fully described so that the caps one at a time will be fed onto the anvil 10 to be exploded when struck by the striking element 9. The trough 15 is further supported on the resilient strip or member 6 by a clip 17.

Converging leaf springs 18 are secured to the opposite side walls of the trough and engage opposite sides of the cap strip for aiding in guiding the movement of the cap strip through the trough and also acting to prevent reverse movement of the cap strip by the feeding mechanism on the return of the same to its initial position. The bottom wall of the trough 15 adjacent the anvil 10 has a groove 19 over which the cap strip passes, the latter usually being provided with openings or perforations between the explosive caps and in which the feeding mechanism extends and the groove 19 is adapted to receive the free end of the feeding mechanism during its feeding movement of the strip toward the anvil.

A sleeve 20 is mounted on the resilient strip or member 5 and carries a bowed resilient feed member 21 having a pointed free end 22 engageable with the cap strip while in the trough during all of the positions of the resilient strip or member 5. The free end of the feed member 21 operates between the converging leaf type springs 18, as clearly shown in Figures 1 and 2.

In operation, the cap strip is brought through the trough so that the feed member 21 engages therewith and on flexing the members 5 and 6 together the feed member 21 presents a cap onto the anvil and the striking element 9 coming in engagement therewith brings about the explosion of the cap. On the return of the resilient strips or members 5 and 6 to their initial position, as shown in Figure 1, the feed member 21 moves rearwardly in the trough to obtain another engagement with the cap strip so as to advance the same on the next operation of the device. Thus it will be seen that the device can be safely operated and will afford considerable amount of amusement and may permit rapid explosions to be brought about when it is desired. Further, it is to be seen due to the construction of the device cap strips may be easily placed therein when necessary.

It is believed that the foregoing description, when taken in connection with the accompanying drawings will fully set forth the construction and advantages of this invention to those skilled in the art to which such a device relates, so that

further detailed description will not be required.

Having thus described the invention, what I claim is:

1. A detonating toy comprising resilient members, means for securing said members together for flexation toward each other, an anvil carried by one of said members, a striker carried by the other member, a cap strip supporting means on one of said members, a trough between said cap strip supporting means and the anvil for conveying the cap strip to the anvil, a resilient feed member carried by the other resilient member to engage with the cap strip within the trough for advancing the cap strip onto the anvil on the flexing of said resilient members in the direction of each other, and leaf type springs mounted in said trough to engage with the cap strip.

2. A detonating toy comprising a pair of resilient strips capable of being flexed into engagement with each other, an anvil carried by one of said strips, a strike element carried by the other strip, means for movably supporting a strip of caps on one of the resilient strips and located between said strips, and a feed mechanism located between said strips and carried by one of the resilient strips for feeding the cap strip in a step by step movement to present a cap on the anvil on each flexation of the resilient strips together.

3. A detonating toy comprising resilient members, means for joining said members to leave free ends thereto capable of being flexed in the direction of each other, a strike plate carried by one of the resilient members and opposing the other resiilent member, a striker member carried by the latter-named resilient member, a cap strip supporting means located between said members and secured on one of said resilient members, a trough for conveying the cap strip to the strike plate and located between the resilient members and secured on one of said members, and a feed mechanism carried by one of the resilient members and located between said resilient members and coacting with the trough for advancing the cap strip onto the strike plate on each flexation of the resilient members towards each other.

4. A detonating toy comprising resilient members, means for securing said members together for flexation towards each other, an anvil carried by one of said members, a striker carried by the other member, a cap strip supporting means located between said members and secured on one of said members, a trough between said cap strip supporting means and the anvil for conveying the cap strip to the anvil, said trough located between said members and secured on one of said members, a resilient feed member carried by one of the resilient members to engage with the cap strip within the trough for advancing the cap strip onto the anvil on the flexing of said resilient members in the direction of each other.

CARLTON V. SMITH.