BEST AVAILABLE COPY

No. 688,157. Patented Dec. 3, 1901.

F. CAPLES.

CANE.

(Application filed Mar. 27, 1901.)

(No Model.)

Fig. 1.

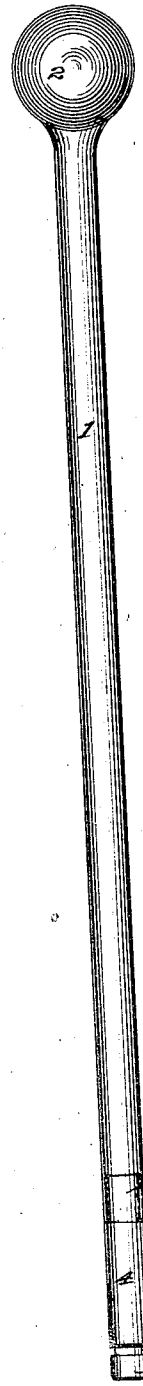


Fig. 2.

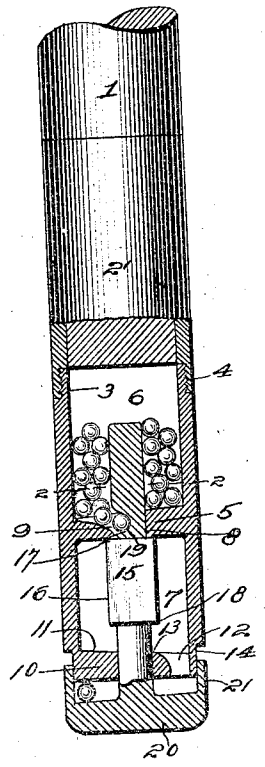


Fig. 3.

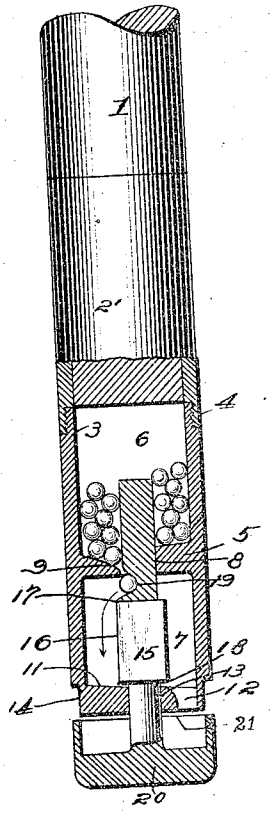
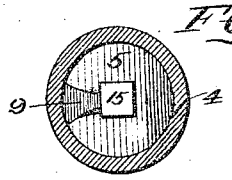


Fig. 4.



Witnesses
Fred. Gruyard.
Chas. S. Hoyer.

F. Caples, Inventor.
By Crosby & Co.
Attorneys

UNITED STATES PATENT OFFICE.

FRED CAPLES, OF MORGANTOWN, WEST VIRGINIA.

CANE.

SPECIFICATION forming part of Letters Patent No. 688,157, dated December 3, 1901.

Application filed March 27, 1901. Serial No. 53,112. (No model.)

To all whom it may concern:

Be it known that I, FRED CAPLES, a citizen of the United States, residing at Morgantown, in the county of Monongalia and State of West Virginia, have invented a new and useful Cane, of which the following is a specification.

This invention relates to canes, and particularly to such devices provided with means for automatically feeding and exploding cartridges, torpedoes, and the like; and the object of the present improvement is to provide simple and effective means in connection with the ferrule end of an ordinary cane for producing a detonation, and thereby afford means of amusement and attraction, the cane being adapted for use either by juveniles or adults.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a cane embodying the features of the invention. Fig. 2 is a sectional elevation of the lower or ferrule end of the cane, on an enlarged scale, showing the parts in position for firing or exploding a cartridge or torpedo. Fig. 3 is a view similar to Fig. 2, showing the parts in position for feeding a cartridge or torpedo from the magazine down to the firing or exploding device. Fig. 4 is a horizontal section on the line 2 2, Fig. 2, looking downwardly.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a cane of any suitable material, having a head 2, the improved device being applied in operative position to the lower or ferrule end of said cane. The improved device is shown applied to a cane for the purpose of demonstrating one practical use of the same; but it will be understood that the said device may be equally well applied to any other article to which it can be operatively fixed. The improvement comprises an upper ferrule or sleeve 2, to which a metallic cylinder 3 is removably attached by screw-threads 4 to form a flush joint, the said cylinder being intermediately divided by a horizontal partition 5 to provide an upper magazine 6 and a lower feeding-chamber 7. The upper end of the magazine is completely open, so that when the cylinder is detached from the ferrule or sleeve 2 the said upper end of the magazine will be fully exposed for supplying the same with a charge of torpedoes or the like. When the cylinder is attached to the ferrule or sleeve, the magazine is tightly closed. The partition 5 has a central angular opening 8 extending vertically therethrough, and leading to the said opening from the upper side of said partition is a feed chute or groove 9. The lower end of the cylinder is closed by a bottom wall 10, which is located at the lower terminal of the feeding-chamber and has an upper downwardly-inclined surface 11, trending toward an outlet-opening 12, the said wall 10 having a lower horizontally-straight surface which coacts with an adjacent part, which will be presently described, to explode the torpedo or other device. Through the center of the wall 10 is a round or circular opening 13 in alinement with the opening 8 through the partition 5 above, and the lower end of the cylinder, in line with the said wall 10, is formed with a circumferential-seat groove 14.

A plunger 15 is mounted in the partition 5 and wall 10 and is free to have vertical movement or reciprocation, the lower portion of the stem, fitted in the opening 13, being round or circular in cross-section, and the upper portion, that moves in the opening 8, being of the same form as the latter. At an intermediate point the plunger is formed with an angular enlargement 16 to provide upper and lower limiting-shoulders 17 and 18, which respectively contact with the lower side of the partition 5 and the upper side of the wall 10 to thereby regularly restrict the movement of the plunger in accordance with a predetermined adjustment and disposal of the several parts. The upper angular portion of the plunger is formed with a recess 19 in one side, which is adapted to aline with the chute or groove 9 to individually receive the cartridges or torpedoes from the magazine and convey them through the opening 8 into the feeding-chamber 7, the movement of the upper portion of the plunger in the magazine being such as to cause the torpedoes or cartridges to become placed in the chute or

groove 9, but without liability of accidentally discharging the same. The plunger is long enough to project through the lower wall 10 when raised to its full upward extent and carries a head 20, which moves toward and away from the lower side of said wall and has an upper circumferential flange or gallery 21 to move in the circumferential groove 14 and form a flush joint with the lower end of the cylinder, and by the provision of the flange or gallery 21 the torpedoes, cartridges, or the like are prevented from falling away from the head 20 and are always accurately held in firing position. The head 20 also serves as a contact-plug for the cane for ordinary walking use when the magazine is not charged or the attachment used for exploding purposes.

The operation of the improved device is simple, and it will be seen that as the plunger feeds the torpedoes or other explosive devices from the magazine 6 into the feeding-chamber 7 said explosive devices will be individually deposited through the opening 12 in the wall 10 onto the upper portion of the head 20, the plunger gravitating when the cane is raised and the upper angular portion thereof occluding the opening 8 in the partition 5 and preventing the escape of any one of the charges or torpedoes in the magazine until that which has been previously fed has been exploded, as clearly shown by Fig. 3. The explosion is effected by forcefully striking the head 20 against an adjacent resisting-surface and applying opposite impacts to the cartridge or torpedo confined in the upper portion of the head and by the latter and the lower side of the wall 10. When the head and plunger are moved upwardly to produce an explosion in the manner stated, the said plunger rises to such an extent as to cause the recess 19 in the upper portion thereof to fully aline with the chute or groove 9, and a torpedo or cartridge rolls thereinto. The subsequent elevation of the cane will permit the head and plunger to gravitate, and by the downward movement of the plunger the cartridge or torpedo carried thereby is deposited in the feeding-chamber 7 and from the latter passes out through the opening 12 to the head 20, as before, and thus the device is automatically loaded for a succeeding explosion. This operation will be regularly carried on in a reliable manner until the charge is exhausted.

The improved device will afford considerable amusement to both juveniles and adults and is particularly useful in parades, processions, and the like during political campaigns or for other celebrations, and while the simplified construction disclosed embodies necessary features it is obvious that changes in the form, size, proportions, and minor details may be resorted to without departing from the principle of the invention, and one of these changes that will be frequently adopted is to make the cylinder 3 in two parts connected by a suitable joint, the said construction affording means of conveniently gaining access to the interior of the cylinder to clean or otherwise prepare the same.

Having thus described the invention, what is claimed as new is—

1. A device for exploding torpedoes or the like comprising a part having a magazine with outlet means, and a plunger having an exploding-head, the said plunger being reciprocably mounted in said part and operating to individually feed the torpedoes or the like to the said head.

2. A device for exploding torpedoes or the like comprising a cylinder divided to form an upper magazine and a lower feeding-chamber separated from the said magazine by a horizontal partition, and a plunger having portions reciprocable in said magazine and feeding-chamber and movable through said partition and provided with an exploding-head.

3. A device of the class set forth comprising a cylinder divided to form a magazine and a feeding-chamber, and a plunger having portions reciprocable in said magazine and chamber and operating to individually feed the explosive means from the magazine, the said plunger being provided with an exploding-head having an upper surrounding flange.

4. A device of the class set forth comprising a cylinder having an intermediate partition with a central opening therethrough and a feed-groove leading thereto, the partition forming a magazine and lower feeding-chamber, the latter having a bottom wall with a central opening therethrough and an outlet-opening, and a plunger having movement in said magazine and chamber, the upper portion of the plunger being provided with a recess and the lower portion having an exploding-head.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRED CAPLES.

Witnesses:
RICHARD MYERS,
W. F. HAWKINS.