

No. 708,766.

Patented Sept. 9, 1902.

E. HAZLEHURST.
SPINNING TOP.

(Application filed Dec. 23, 1901.)

(No Model.)

Fig. 1.

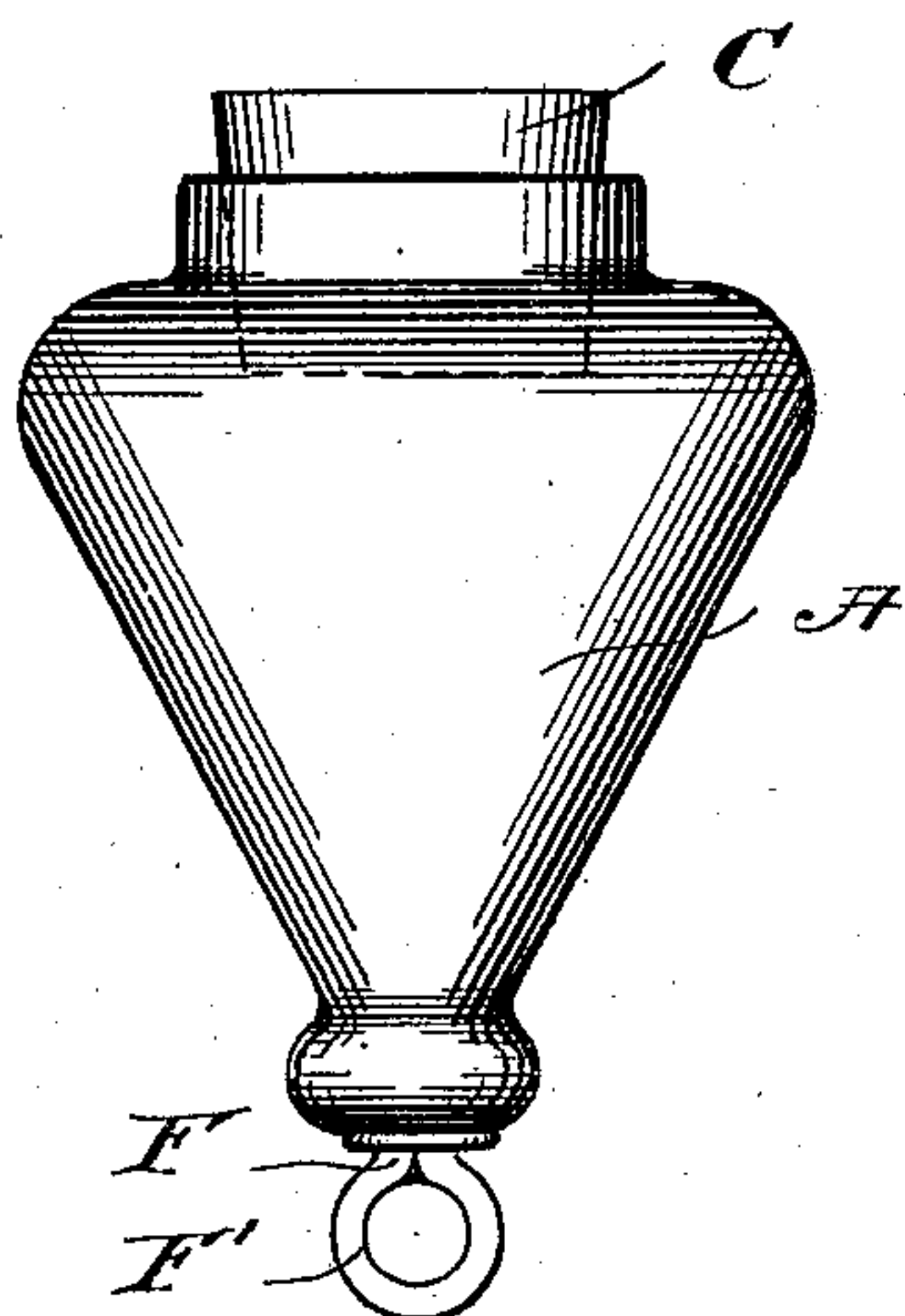


Fig. 2.

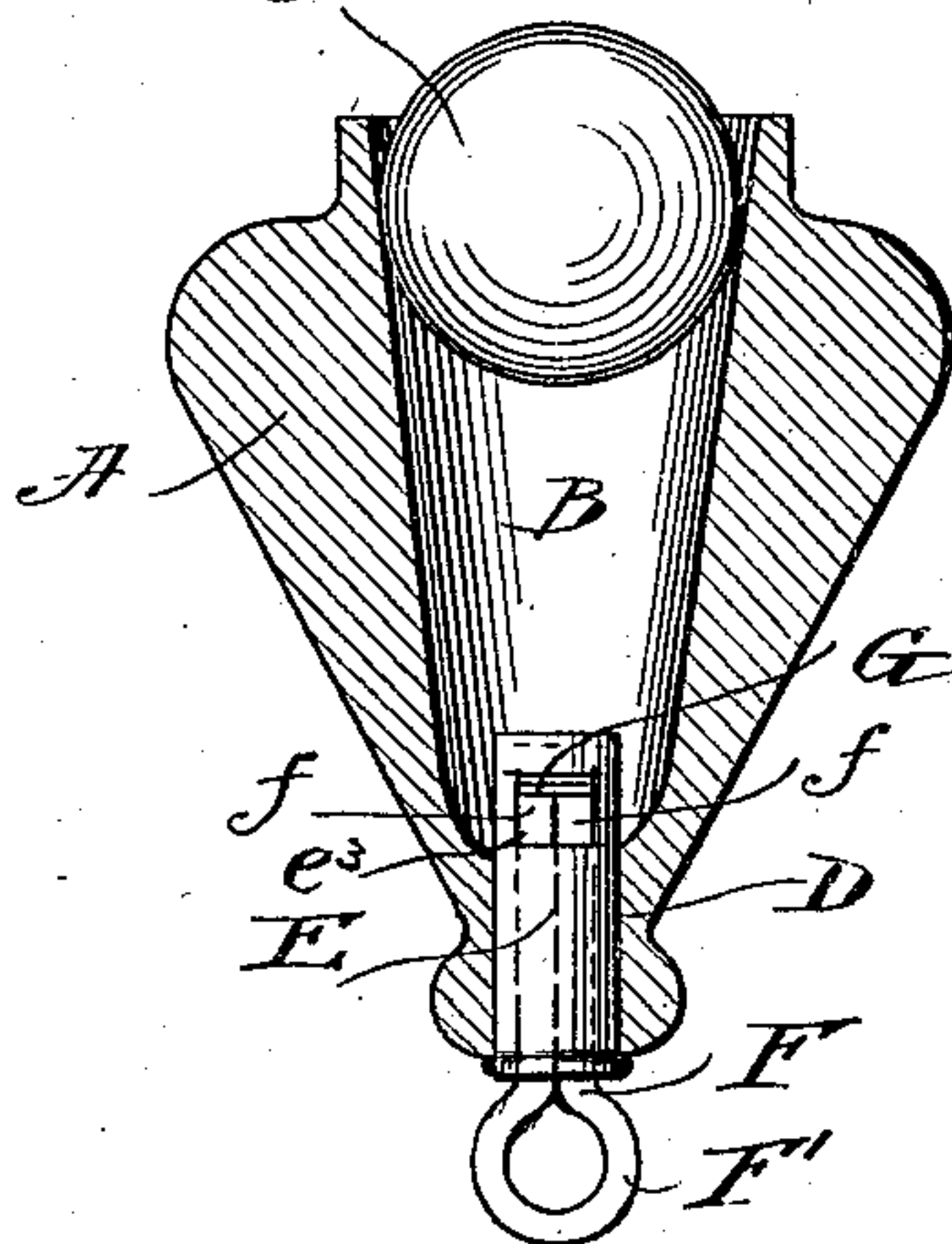
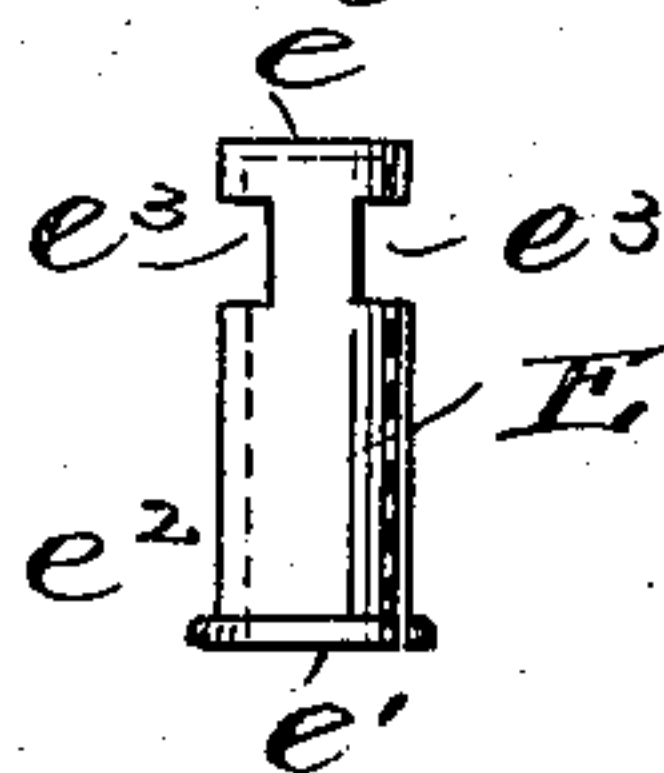


Fig. 3.



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SPINNING-TOP.

SPECIFICATION forming part of Letters Patent No. 708,766, dated September 9, 1902.

Application filed December 26, 1901. Serial No. 87,219. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HAZLEHURST, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Spinning-Tops, of which the following is a specification.

This invention relates to that class of toys known as "detonating tops," which are usually spun by means of a cord coiled around the body of the top, which latter is thrown to the floor or ground by the user and through the impact of its point or spindle with the surface on which it spins explodes a percussion-cap or similar charge of explosive, thereby producing a loud report, such as is calculated to please and amuse a child using the device as a plaything.

The object of my invention is to provide a simple and reliable toy of the character specified which shall be inexpensive to manufacture, easy to operate, and certain and sure in its intended results.

A further object of my invention is to provide in connection with and constituting an element of the toy as above described a closure for the upper end thereof, which may be a snug-fitting cap, stopper, or ball, or other equivalent device, which in the operation of spinning the top is adapted to receive the force and effect of the explosive in such a manner as to project it upwardly into the air, whence on its descent it may be caught by the person operating the device, thus affording an additional source of interest and amusement to the user.

Still another object of the invention is to provide in connection with a toy of this class a receptacle for the distribution of small quantities of merchandise, which may be given away as advertising samples with the top or may be sold in connection therewith.

To these ends my invention consists in a spinning-top of the general type and character above mentioned and possessing the characteristics of structure and mode of operation, substantially as hereinafter described and more particularly set forth in the appended claims.

A spinning-top embodying my invention in its preferred form is illustrated in the

drawings accompanying this description, in which—

Figure 1 is a side elevation of the form of my invention which I have selected as a desirable illustration thereof. Fig. 2 is a central vertical section through the body of the top and illustrating a modified form of closure constituting the projectile; and Fig. 3 is a detail in elevation of the spindle bushing or sleeve seated in the lower end or apex of the top-body, the inner or upper end of which constitutes the seat or anvil for the explosive.

Referring to the drawings for a more detailed description of my invention, A designates the body of the top, which is in the usual conical form and may be made of wood, sheet metal, or any other suitable material, the exterior of which is adapted to be wound with the usual spinning-cord. (Not shown.) The body of the top is hollow or cored out, as shown at B in Fig. 2, the upper end of the chamber thus formed being adapted to be closed by any suitable snugly-fitting closure, such as the plug or stopper shown at C in Fig. 1 or the ball shown at C' in Fig. 2. Numerous other forms of closures for the upper end of the chamber B might be employed, if preferred, the closures shown in the drawings being typical merely. The lower end of the chamber B communicates with the lower end or apex of the top-body through a preferably cylindrical opening D, cored through the body of the top at this point and forming a seat for a hollow metal bushing or sleeve E, preferably cylindrical in form. This bushing, which is closed across its top end at e and open at its lower end at e' , snugly fits the opening D, being driven therein to occupy the position illustrated in Fig. 2. The lower end of the bushing may be provided with an annular lip or flange e^2 , which seats upon the lower margin of the opening D and by engagement therewith prevents the bushing from being driven farther into the body of the top under the impact of the spindle with the surface on which the top is spun. The bushing E is further cut out laterally near its inner or upper end, preferably at two opposite points, as shown at e^3 , the object of these openings being to provide a free escape for the explosive gases and the force or energy resulting from the ex-

plosion into the chamber B, it being observed that these side openings are cut in the bushing at points laterally coincident with the lower end of the chamber and opening freely into the latter.

F is the spindle of the top. In the form herein shown, which is the form I prefer to employ for reasons hereinafter stated, this element of the device comprises a longitudinally-split stem or shank, as clearly shown in Fig. 2, the two halves of which (designated by *f*) are united at their lower ends by an elastic metal loop or ring *F'*, formed integral therewith. The ring *F'* by its elasticity normally tends to slightly spread the two halves of the shank or stem, so that when the latter are brought together with their opposing faces in contact they constitute a snugly-fitting spindle in the sleeve or bushing E, which may be readily inserted in or withdrawn from the latter by a slight push or pull of the operator, but which when in place engages the inner walls of the bushing with sufficient friction to prevent all danger of the spindle falling out of the bushing by gravity or momentum in the operation of throwing the top. The upper end of the spindle is squared off perfectly flat and constitutes the hammer which explodes the fulminate between itself and the seat or anvil constituted by the upper closed end *e* of the bushing E. The rounded or ring-shaped lower end of the spindle constitutes a spinning point or apex for the device equally effective with the sharp points hitherto commonly employed on the spindles of spinning-tops, with the advantage that it does not mark, indent, or otherwise deface or injure the floor or other surface on which the top is spun.

The manner of operating my improved detonating top will be quite apparent from the foregoing description of its construction, but may be briefly set forth as follows: To load the top, the spindle F is withdrawn and a charge of explosive or fulminate, preferably that type of percussion-cap which is put up in the form of a paper-wafer, is introduced at the open end of the spindle-bushing and by the subsequent insertion of the spindle is pushed home to its seat between the inner end of the spindle constituting the hammer and the upper closed end of the bushing constituting the anvil, all as plainly shown in Fig. 2, wherein I have designated the cap by the reference-letter G. Either before or after thus loading the top by the application thereto of the explosive the closure C or C' is applied to the upper end of the chamber B, being pressed down to a snugly-fitting contact with the walls of the top-body, so that the closure will not be likely to be unseated in the operation of throwing the top. The spinning-string being then applied, the top is thrown and spun in the usual manner with tops of this class, and upon the instant of impact of the lower end of the spindle with the floor or ground the cap is exploded by the impact im-

parted through the spindle, and the exploding gases, finding free vent to the inner chamber of the top through the side apertures *e*³ of the spindle-bushing, instantly expel the closure or projectile, throwing the same to a considerable distance in the air, according to the size of the explosive charge used, producing a loud report to the delight of the user and at the same time inviting his interest in an effort to catch the ball, stopper, or other closure constituting the projectile upon its descent.

By making the body of the top hollow, as above described, the top may be made to constitute a receptacle for small candies, marbles, tacks, or any other merchandise which may be given away as an advertising sample or sold in connection with the top, my invention thus constituting an attractive advertising device in connection with any merchandise for which it is adapted to constitute a receptacle.

It will thus be seen that by my invention I have provided a simple and inexpensive toy capable of producing a variety of interesting effects simultaneously, such as the spinning of the top itself, the production of a noise or report, and the throwing of a projectile, the novel combination of which effects is calculated to amuse and please the user. I am aware that the broad idea of a detonating top is not new with me; but so far as I am aware I am the first to combine with a spinning-top of the detonating type a closure in the nature of a projectile which is adapted to be impelled into the air under the force of the explosion. So far as I am aware I am also the first to provide in a top of this character a spindle which is removable by simply withdrawing the same from the lower end of the top-body and which provides for the application of the explosive by forcing the latter to its seat through the reintroduction of the spindle. It will be obvious that other forms of spindle than that herein shown might be used in connection with and as an element of my invention and other means of retaining the spindle in place than by friction due to the elasticity of the metal from which the spindle is formed. I prefer the longitudinally-split spindle herein shown and described, however, having the closed lower end, for the reason that it affords the simplest combination of desirable features of any form of spindle with which I am acquainted. I do not, therefore, limit my invention to the exact details of construction or specific form and relative arrangement of the several elements hereinabove shown and described, since it is obvious that the same might be varied to a considerable extent within the spirit and purview of my invention.

I claim—

1. In a spinning-top, the combination with a hollow top-body, of a closure for the upper end thereof constituting a projectile and means in the lower portion thereof for ex-

ploding a charge of fulminate by the impact of the top with the floor or ground in spinning, substantially as described.

2. In a spinning-top, the combination with
5 a top-body having a chamber formed therein, of a closure for the upper end thereof constituting a projectile, a fixed seat or anvil in the lower end of said chamber, and a longitudinally-slidable spindle the upper end of
10 which constitutes a hammer to explode a charge of fulminate against the anvil on the impact of the top with the floor or ground in spinning, substantially as described.

3. In a spinning-top, the combination with
15 a top-body having a chamber formed therein and a closure therefor constituting a projectile, of a bushing fixed in the lower end of the top and entering the lower end of said chamber, said bushing being closed at its inner
20 end to form an anvil and having a lateral aperture communicating with said chamber, and a removable spindle longitudinally slidable in said bushing, the upper end of which constitutes a hammer to explode a charge of
25 fulminate against the anvil on the impact of the top with the floor or ground in spinning, substantially as described.

4. In a spinning-top, the combination with
30 a top-body longitudinally chambered and apertured and a closure therefor constituting a projectile, of a fixed seat or anvil in the lower end of said chamber, and a spindle adapted to be inserted and withdrawn through the lower end of the top-body for the appli-
35 cation of a charge of fulminate, the upper end of said spindle serving as a hammer to explode the charge against said anvil when the top is thrown to the floor or ground, substantially as described.

40 5. In a spinning-top, the combination with a top-body longitudinally chambered and apertured, of a fixed seat or anvil in the lower

end of said chamber, and a longitudinally-split spindle the divided shank or stem of which is adapted to be inserted and with- 45 drawn through the lower end of the top-body for the application of a charge of fulminate, the two sections of said shank at their upper ends constituting a hammer to explode a charge of fulminate against the anvil and at 50 their lower ends being united by an elastic connection, substantially as described.

6. In a spinning-top, the combination with a top-body having a chamber formed therein, of a laterally-apertured bushing having a 55 closed inner end constituting an anvil fixed in the lower end of the top and communicating with said chamber, and a longitudinally-split elastic spindle slidably and removably engaging said bushing for the application, 60 retention and explosion of a charge of fulminate between the inner end of the spindle and the anvil of the bushing, substantially as described.

7. A detonating top adapted also as a re- 65 ceptacle for merchandise in small quantities, comprising in combination a top-body having a chamber formed therein, a laterally-apertured bushing having a closed inner end constituting an anvil passed through the 70 lower end of the top-body and communicating with said chamber, a longitudinally-split elastic spindle slidably and removably engaging said bushing for the application, re- 75 tention and explosion of a charge of fulminate between the inner end of the spindle and the anvil of the bushing, and a closure for the upper end of said chamber which also constitutes a projectile, substantially as described.

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Witnesses:

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