H. & R. Y. DICKINSON.

SHOOTING APPARATUS.

APPLICATION FILED MAY 21, 1914.

1,126,415.

Patented Jan. 26, 1915.

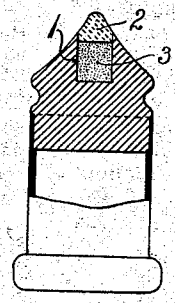
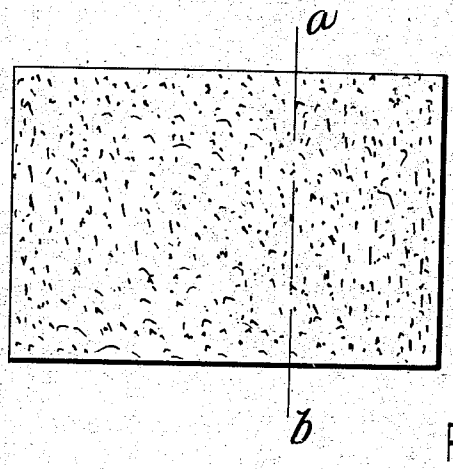
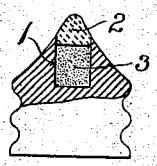


FIG. 3.

FIG. 1

FIG. 4.





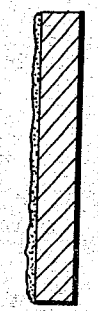


FIG. 2

Witnesses:
W. A. Hessling
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Inventors:
Herbert Dickinson
and Reginald Y. Dickinson
by B. Singer Atty.

UNITED STATES PATENT OFFICE.

HERBERT DICKINSON AND REGINALD YOUNG DICKINSON, OF LONDON, ENGLAND, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO ANDREW JACKSON STONE, OF LONDON, ENGLAND, AND ONE-HALF TO AL H. WOODS, OF NEW YORK, N. Y.

SHOOTING APPARATUS.

1,126,415. Specification of Letters Patent. Patented Jan. 26, 1915.

Application filed May 21, 1914. Serial No. 840,083.

To all whom it may concern:

Be it known that we, HERBERT DICKINSON and REGINALD YOUNG DICKINSON, of London, England, have invented certain new and useful Improvements in Shooting Apparatus, of which the following is a specification.

This invention relates to improvements in shooting apparatus and has particular reference to apparatus for use in shooting galleries.

The invention consists broadly in providing the nose of the bullet, slug or other projectile with an inflammable composition and providing a target with a surface which when the inflammable nose of the bullet impinges upon it operates to ignite the inflammable nose and thus provide certain means whereby the position of the hit can be instantly and accurately observed. The target may conveniently consist of a cinematograph screen in which case the objects to be fired at would be the images moving on the screen. The target may however take other forms so long as its surface or surfaces is or are so coated as to insure the ignition of the nose of the projectile when the latter impinges upon it.

In the accompanying drawings we have illustrated by way of example forms of the projectiles we propose to employ, Figure 1 being a sectional view to an enlarged scale of a cartridge such as is employed in a "Winchester" rifle, and Fig. 2 is a similar view of a slug such as is used in an air gun. Fig. 3 is a plan view of the target, and Fig. 4 is a sectional view taken on the line *a*—*b* of Fig. 3. These protectiles are of ordinary form, but the extreme tips of the projectiles are bored out as at 1 and are filled or tipped with a composition indicated at 2 such as is commonly used in the manufacture of household matches. In some cases where greater illumination is desired, we first introduce into the recess behind the match head composition aforesaid a small quantity of a quick firing and highly illuminative pyrotechnic compound 3 or a powder such as magnesium could be added to and incorporated with the match composition aforesaid. The constituents of the match composition aforesaid are made into a paste in the usual way and the projectiles tipped much in the same way that match sticks are tipped. Where safety match composition is employed, the target—whatever form it may take—will be painted with the composition which is usually applied to form the striking surface of the matchbox but where the composition is of the phosphorous character such as is used for wax vestas or matches which "strike" upon any roughened surface, it will only be necessary to provide a surface sufficiently hard and rough to insure the ignition when the projectile hits.

What we claim and desire to secure by Letters Patent is:—

1. In shooting apparatus a projectile provided with a recess in its nose containing a pyrotechnic composition and said recess being closed at its outer end by a safety match composition which automatically ignites upon contact with the specially coated surface of a target.

2. In shooting apparatus a target coated with a complemental spark chemical, a projectile including its complemental nose, a longitudinally disposed recess in said projectile adjacent said nose, a pyrotechnic composition inserted in said recess, a complemental flash chemical adapted to cover said nose and recess, whereby an initial spark and instantaneous flash is produced when said projectile strikes said target, substantially as described.

3. In shooting apparatus, a projectile including its nose, a pyrotechnic composition embedded in said nose, a safety match composition covering said pyrotechnic composition which automatically ignites upon contact with the surface of a target said surface being coated with a complemental spark composition.

In testimony whereof we affix our signatures in presence of two witnesses.

HERBERT DICKINSON.
REGINALD YOUNG DICKINSON.

Witnesses:
O. J. WORTH,
B. J. MINUMS.