

No. 667,642.

Patented Feb. 5, 1901.

W. H. WYTHE.
DETONATING TOY.

(Application filed Jan. 14, 1899.)

(No Model.)

Fig. 1.

D

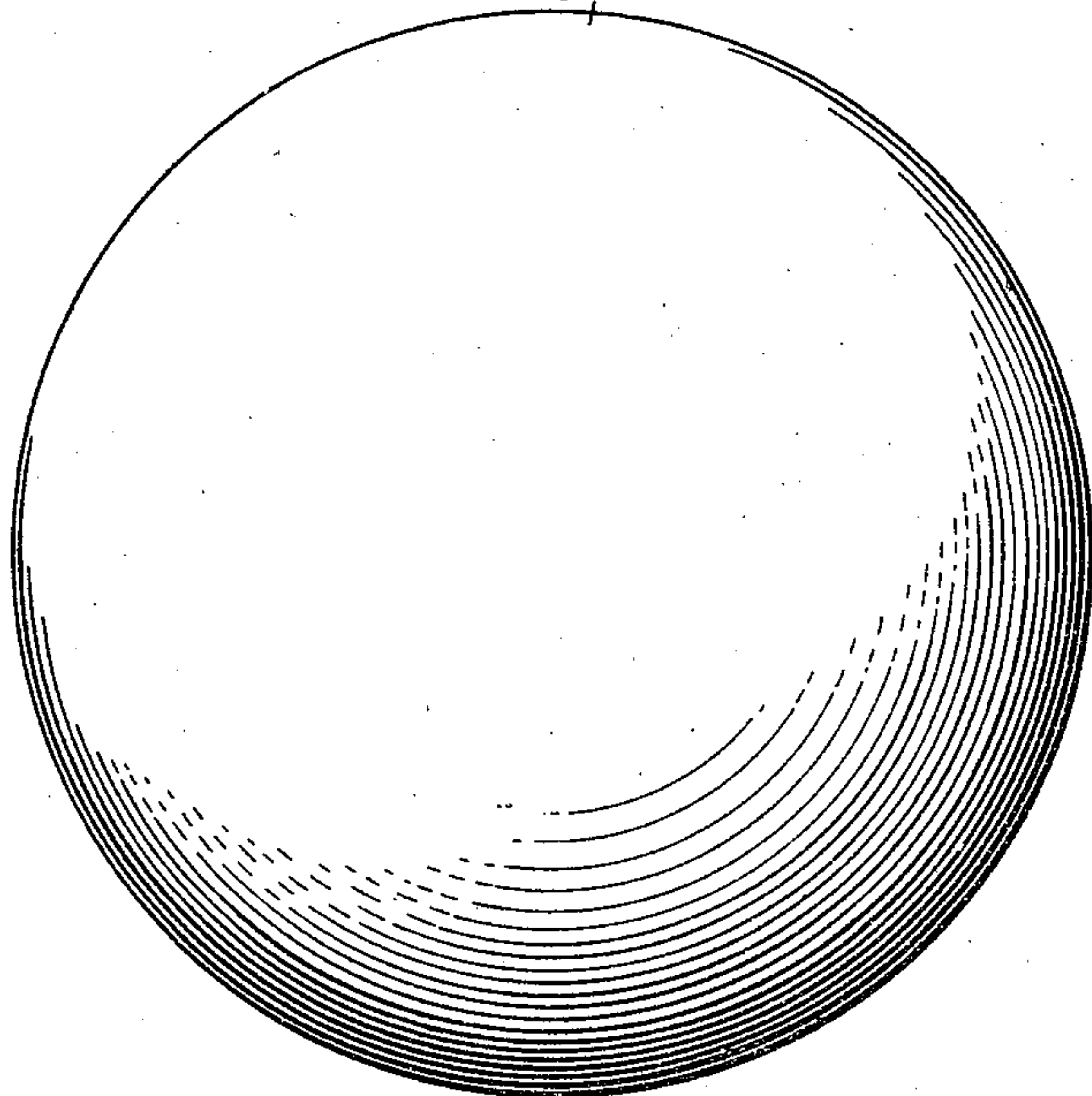
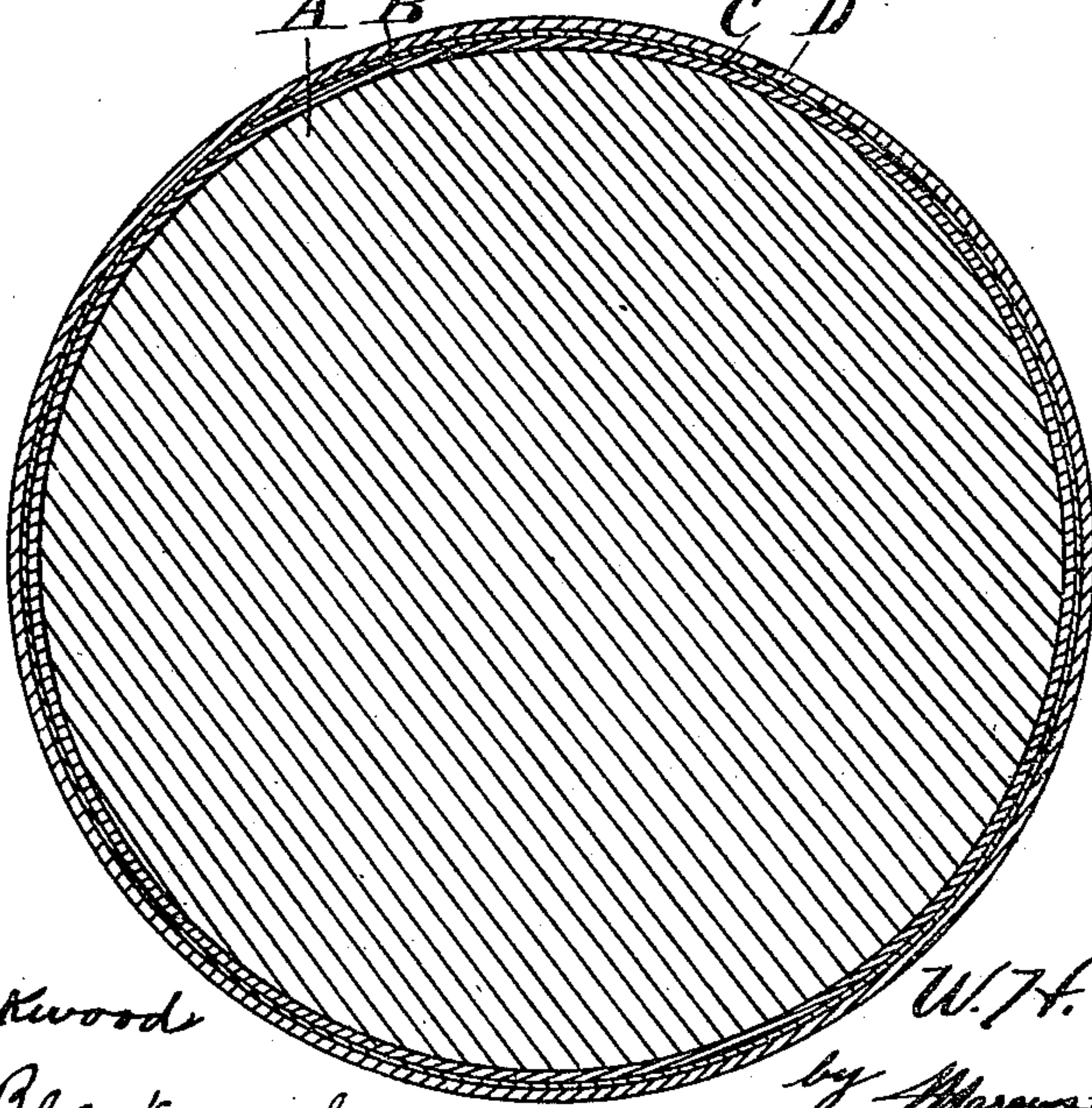


Fig. 2.

A B C D



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WYTHER, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO THE
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DETONATING TOY.

SPECIFICATION forming part of Letters Patent No. 667,642, dated February 5, 1901.

Application filed January 14, 1899. Serial No. 702,181. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WYTHER, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Children's Torpedoes or Detonating Toys, of which the following is a specification.

My invention consists of an ordinary playing-marble or other hard body coated with a detonating compound which when thrown against or struck by a hard substance will explode only at the point of contact, leaving the surrounding parts unchanged.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevational view of the finished article, and Fig. 2 a central section showing the disposition of the successive coatings.

Referring to the drawings, A represents a marble or other hard body; B, a coating of essentially non-heat-conducting size or glue; C, a very thin coating of detonatable material, and D an incombustible envelop or protective covering. It has been necessary to greatly exaggerate the thickness of the several layers or coatings in the drawings for the purpose of fully illustrating the same, as in actual practice the thickness of said coatings is not much more than that of a line and that of the detonatable material being extremely thin.

The detonating compound may be applied either in the form of a paste or the marble may be coated with a strong size or other adhesive material and afterward rolled in a dry powder composed of the detonating compound.

The detonating compound consists of a readily-oxidizable substance, such as sulfur, phosphorus, pyroxylin, sulfid of antimony, or other sulfids, in combination with chlorate of potassium or other chlorates, picric acid, oxid of silver, nitrate of potassium, or other oxidizing substances in such proportions that the mixture will only detonate at the point of contact when struck. Powdered glass, sand, or other inert sub-

stances may be added to reduce the explosive force of the mixture in such proportions as may be desired. In practice I prefer a mixture of powdered sulfur and chlorate of potassium in the proportion of forty parts of sulfur to sixty parts of chlorate of potassium. The sulfur may be mixed alone with the size and applied to the marble as a paste and afterward rolled in dry chlorate of potassium in fine powder. I do not, however, limit myself to the above-named ingredients or proportions, as any of many other substances and proportions may be used, provided the amount of the oxidizing substance is in excess of the other material.

In order to protect the torpedo from possible danger of fire and to confine the detonation absolutely to the point of contact, I cover it with a thin coating of silicate of soda or other fireproof varnish.

I claim—

1. As an article of manufacture, a repeating torpedo consisting of the combination with a hard incombustible body of an uninterrupted, adherent, locally-detonatable and non-combustion-maintaining coating for said body.

2. As an article of manufacture, a repeating torpedo consisting of the combination with a hard incombustible body of substantially globular form of an uninterrupted, adherent, locally-detonatable and non-combustion-maintaining coating for said body.

3. As an article of manufacture, a repeating torpedo consisting of the combination with a hard incombustible body of an uninterrupted, adherent, locally-detonatable and non-combustion-maintaining coating for said body, said coating comprising an under coating of an essentially non-heat-conducting size or glue and a thin outer coating of detonatable material.

4. As an article of manufacture, a repeating torpedo consisting of the combination with a hard incombustible body of an uninterrupted, adherent, locally-detonatable and non-combustion-maintaining coating for said body, said coating comprising an under coat-

ing of an essentially non-heat-conducting size or glue and a thin outer coating of a mixture of forty parts of powdered sulfur and sixty parts of chlorate of potassium.

- 5 5. As an article of manufacture, a repeating torpedo consisting of a hard incombustible body, an uninterrupted, adherent, lo-

cally-detonatable and non-combustion-maintaining coating for said body and an outer adherent incombustible envelop or covering.

WILLIAM H. WYTHE.

Witnesses:

MAUDE H. WYTHE,
EDWIN H. LITTELL.