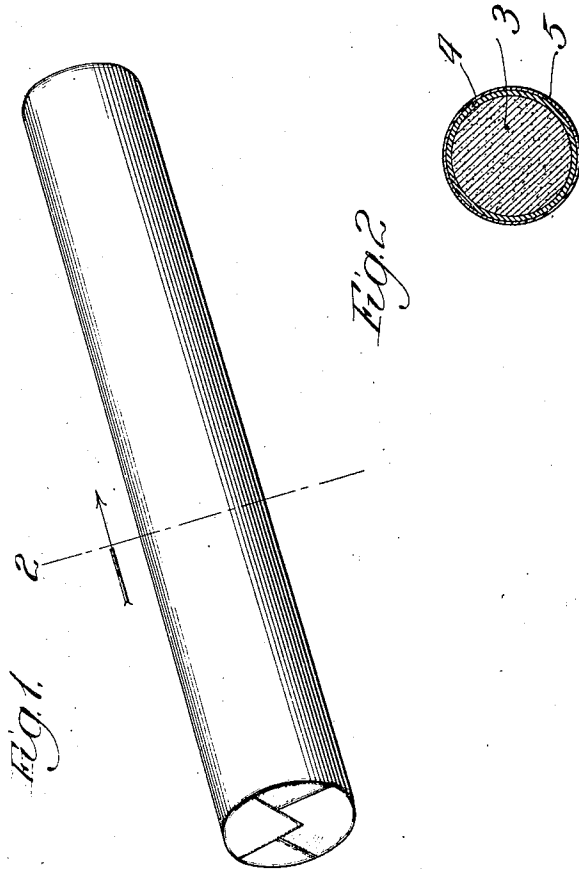


T. TURTON.
BLASTING CARTRIDGE.
APPLICATION FILED MAY 27, 1909.

936,192.

Patented Oct. 5, 1909.



Witnesses:
[Signature]
Clyde C. Palmer.

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UNITED STATES PATENT OFFICE.

THOMAS TURTON, OF KILGORE, IDAHO, ASSIGNOR TO WILLIAM HOSKINS, OF LA GRANGE, ILLINOIS.

BLASTING-CARTRIDGE.

936,192.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed May 27, 1909. Serial No. 498,624.

To all whom it may concern:

Be it known that I, THOMAS TURTON, a citizen of the United States, residing at Kilgore, in the county of Fremont and State of Idaho, have invented a new and useful Improvement in Blasting-Cartridges, of which the following is a specification.

My object is to provide a cartridge of dynamite, or other explosive of which nitroglycerin is a component, of an improved construction which renders it practically free from danger of premature explosion, without in any way detracting from its explosive quality when used as intended.

It is usual to form a blasting cartridge by providing a stick of dynamite with a wrapper of paraffin, or other water-proof, paper to facilitate handling and exclude moisture; and while all the nitroglycerin remains incorporated with the sawdust, or other absorbent with which it is mixed to diminish its sensitiveness to shock, there is no danger attendant upon handling the cartridge if ordinary care is employed. It is only when, from any cause, nitroglycerin exudes from the mixture and collects upon the outer surface of the stick, or between the water-proof covering and the explosive, that danger of premature explosion becomes imminent. Lack of recognition of this fact has been the primary cause of many serious disasters. The freezing and thawing of dynamite or its subjection to a comparatively high temperature, have the effect, generally, of causing nitroglycerin to separate out of the stick and lodge between it and the non-absorbent paraffin wrapper. As the nitroglycerin is not all reabsorbed by the more or less saturated absorbent material with which it was originally mixed, some of it remains free, in which condition it is very sensitive to shock.

I have discovered that by incasing the dynamite, or the like, in a closely-fitting layer or wrapper of bibulous material, such as blotting-paper, which will absorb and retain any free nitroglycerin exuded from the mixture, the danger from premature explosion is practically eliminated. The bibulous material in holding the nitroglycerin has the same effect as the sawdust, or the like, of diminishing the sensitiveness of the nitroglycerin to shock.

In the accompanying drawing, Figure 1 illustrates my improved cartridge in per-

spective; and Fig. 2 is a sectional view of the same.

The stick of dynamite 3 is enveloped in a closely-fitting layer or wrapper 4 of suitable absorbent material, such as blotting-paper, which, in turn, is incased in a wrapper 5 of 60 paraffin paper, or other suitable moisture-excluding material. The inner layer, or wrapper, 4 of blotting-paper, or the like, should contact closely with the explosive mixture so as to absorb nitroglycerin as fast as it exudes from the stick or mixture, thereby preventing the collection of any free nitroglycerin between it and the mixture. In blasting, the absorbent wrapper, more or less impregnated with the nitroglycerin, 70 may be charged into the hole with the stick, thereby avoiding waste.

What I claim as new and desire to secure by Letters Patent is—

1. A cartridge formed with a nitroglycerin-containing explosive having a contacting bibulous wrapper adapted to absorb nitroglycerin freed by freezing and thawing.

2. A cartridge formed with a nitroglycerin-containing explosive having a contacting wrapper of bibulous material incased in an outer wrapper of moisture-excluding material said bibulous material being adapted to absorb nitroglycerin freed by freezing and thawing.

3. A cartridge formed with a nitroglycerin-containing explosive having a contacting wrapper of blotting-paper adapted to absorb nitroglycerin freed by freezing and thawing.

4. A cartridge formed with a nitroglycerin-containing explosive having a contacting wrapper of blotting paper incased in an outer wrapper of moisture-excluding material said blotting-paper being adapted to absorb nitroglycerin freed by freezing and thawing.

5. A cartridge formed with a nitroglycerin-containing explosive having a contacting wrapper of blotting-paper incased in an outer wrapper of paraffin paper said blotting-paper being adapted to absorb nitroglycerin freed by freezing and thawing.

THOMAS TURTON.

In presence of—
MURIEL DENY,
MAY TURTON.