UNITED STATES PATENT OFFICE.

HARRY ARMER CALLAHAN, OF BRADFORD, PENNSYLVANIA; WILLIAM C. CALLAHAN, ADMINISTRATOR OF SAID HARRY ARMER CALLAHAN, DECEASED, ASSIGNOR OF ONE-HALF TO LE ROY L. HIGGINS, OF SAME PLACE.

DYNAMITE.

SPECIFICATION forming part of Letters Patent No. 525,188, dated August 28, 1894.

Application filed July 21, 1893. Serial No. 481,117. (No specimens.)

To all whom it may concern:

Be it known that I, HARRY ARMER CALLAHAN, of Bradford, in the county of McKean and State of Pennsylvania, have invented a new and Improved Composition of Matter to be Used as an Explosive, of which the following is a full, clear, and exact description.

This composition is to be used as an explosive of a high or low grade, as may be desired, and which is safe to transport and to handle.

In order to produce an explosive having fifty per cent. of nitro glycerin I use forty pounds of pulverized coke put into a tray for mixing with ten pounds of acetate of lime, and fifty pounds of nitroglycerin, to produce one hundred pounds of the explosive, which then forms a mixture curiously water-repellent.

For one hundred pounds of fifty per cent. safety powder or dynamite in granular form, I use fifty pounds of acetate of lime and fifty pounds of nitroglycerin, thoroughly mixed together to prepare the explosive ready for use.

To make an explosive of a different grade, I use different proportions or weights of the absorbents above referred to.

The explosives thus prepared are safe to handle and to transport. I am enabled to make dynamite as low as seven and one-half per cent., and which can be exploded in confinement only and with a mercury cap alone.

As before stated, the absorbents are acetate of lime and powdered coke, and with these materials I am enabled to produce a powder in regular dynamite form or in granular form, so that the explosive can be put up in kegs the same as ordinary gun-powder.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. An explosive comprising nitroglycerin and acetate of lime, substantially as described.

2. An explosive consisting of nitroglycerin and a mixture of pulverized coke and acetate of lime, substantially as described.

HARRY ARMER CALLAHAN.

Witnesses:
LE ROY L. HIGGINS,
ANDREW P. HIGGINS.