# UNITED STATES PATENT OFFICE.

LEVI SHORT, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVED COMPOSITION FOR FILLING SHELLS.

Specification forming part of Letters Patent No. **38,424**, dated May 5, 1863.

*To all whom it may concern:*

Be it known that I, LEVI SHORT, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful compound or composition for combining with projectiles bomb-shells, rockets, and other missils to be projected from fire-arms, ordnance, and other engines or war, to be used either in a liquid or solidified form, which composition I designate as "Short's American Greek Fire;" and I do hereby declare that the following is a full and exact description of the mode of compounding and mixing and using the same, to wit:

I take forty pounds of saltpeter, seven pounds of charcoal, six pounds of asphaltum, two pounds of antimony, seven pounds of sulphur, and two gallons of naphtha. These ingredients, substantially in the proportions described, I thoroughly mix in a large wooden tank lined with copper, and when thoroughly mixed I allow the compound to stand for two or three days to settle. A large amount of sediment collects at the bottom of the tank, and the liquid rises above. The liquid is then drawn off and combined with any vegetable fibrous substance, the said fibrous material to be fully saturated with the liquid. This is then packed in explosive shells or projectiles and used as a destructive war-missile to burn an enemy's ships, forts, &c. The sediment which collects at the bottom of the tank is taken in its plastic state and pressed into metallic cases of any convenient size—say three inches in length and five-eighths of an inch in diameter, more or less. This makes a combustible missile which, when ignited by the explosion of the projectile, will burn with great intensity. As many of these as may be required are then put into and combined with an explosive shell or any form of explosive projectile for use. When the projectile explodes these missiles will take fire, collodium being sprinkled over their open ends for this purpose, and will dart out in every direction with ten thousand fiery tongues, hissing and burning wherever they go. The fire is unquenchable. Water will not extinguish it. It consumes and burns wherever it strikes. When thrown into an enemy's fortifications, forts, ships, or camps these missiles will consume everything in their fiery course, sending death and desolation into the enemy's ranks.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A combustible composition formed of the above-named ingredients or their equivalents, substantially in the proportions and for the purposes herein set forth.

2. Metallic pellets or missiles filled with combustible matter, in combination and use with explosive projectiles, for the purposes and substantially as set forth.

LEVI SHORT.

Witnesses:
H. N. TAFT,
O. G. ABELL.