

(No Model.)

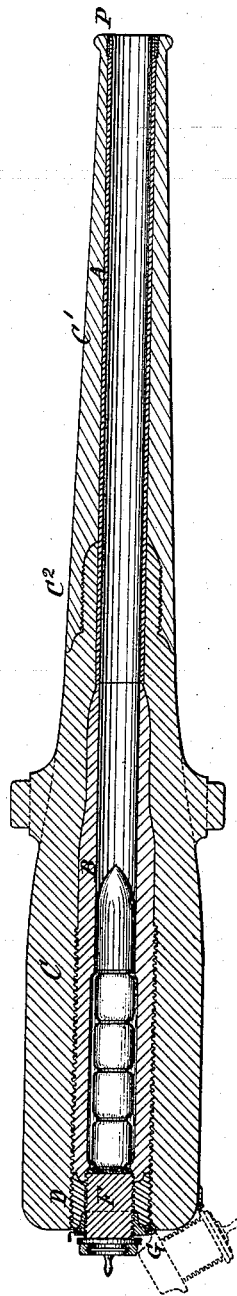
W. PALLISER, Dec'd.,

J. L. NORRIS, administrator.

ORDNANCE.

No. 265,934.

Patented Oct. 10, 1882.



Witnesses:

*J. A. Rutherford*  
*Robert Everett*

Inventor:

*William Palliser, dec'd.*

By *James L. Norris.*  
Administrator

# UNITED STATES PATENT OFFICE.

JAMES L. NORRIS, OF WASHINGTON, DISTRICT OF COLUMBIA, ADMINISTRATOR OF WILLIAM PALLISER, DECEASED.

## ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 265,934, dated October 10, 1882.

Application filed July 19, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES L. NORRIS, a citizen of the United States, residing at Washington, in the District of Columbia, am in possession of an invention for a new and useful Improved Composite Gun, invented by WILLIAM PALLISER, deceased, of which the following is a specification.

This invention relates to an improved construction of heavy guns with an outer casing of cast-steel and an inner lining of coiled wrought-iron and steel, as shown on the accompanying drawing, which shows a longitudinal section of the gun.

15 The outer casing, C O', is formed of two separate steel castings, screwed together at C<sup>2</sup>. This casing is turned and then annealed to equalize the strains, and then has the internal screw-thread cut therein for the reception of the coiled wrought-iron lining-tube B. The lining-tube A, which may either be of coiled wrought-iron or of steel, is then first inserted from the breech end, and is secured at the muzzle by the screw-collar P in a similar manner to that described in the patents of William Palliser, after which the tube B is screwed in until its shoulders bear against the shoulders of the casing C, and it is then secured in position by the tubular breech-plug D. The B tube, as also 30 the A tube, when of coiled wrought-iron, are

made to fit easily into the casing, being expanded by the pressure on firing so as to fit the casing closely.

The gun is here shown as a breech-loader, the movable breech-plug F being carried by 35 the hinged collar G and screwed in and out in a well-known manner. When used as a muzzle-loader the end of the B-tube would be closed by a cup-shaped plug screwed into it, and behind this a second plug would be screwed 40 into the tubular plug D.

Having thus described the nature of this invention and in what manner the same is to be performed, I claim—

A composite gun consisting of a cast-steel 45 outer casing, C O', formed in two parts screwed together, in combination with a front lining-tube, A, of either coiled wrought-iron or of steel, and a rear lining-tube, B, of coiled wrought-iron screwed into the casing from the breech, 50 substantially as described.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

JAMES L. NORRIS.

*Administrator of the Estate of William Palliser, deceased.*

Witnesses:

JOS. L. COOMBS,

J. A. RUTHERFORD.