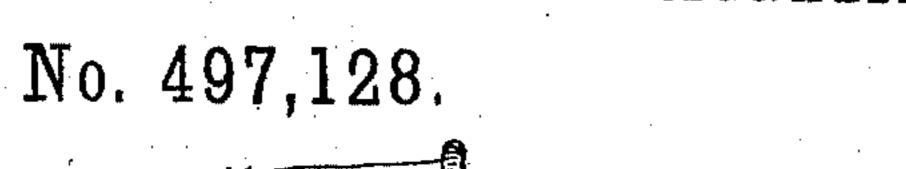
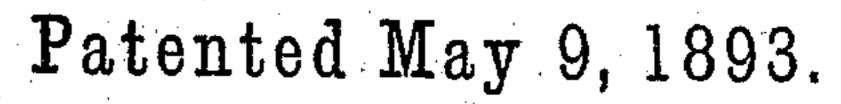
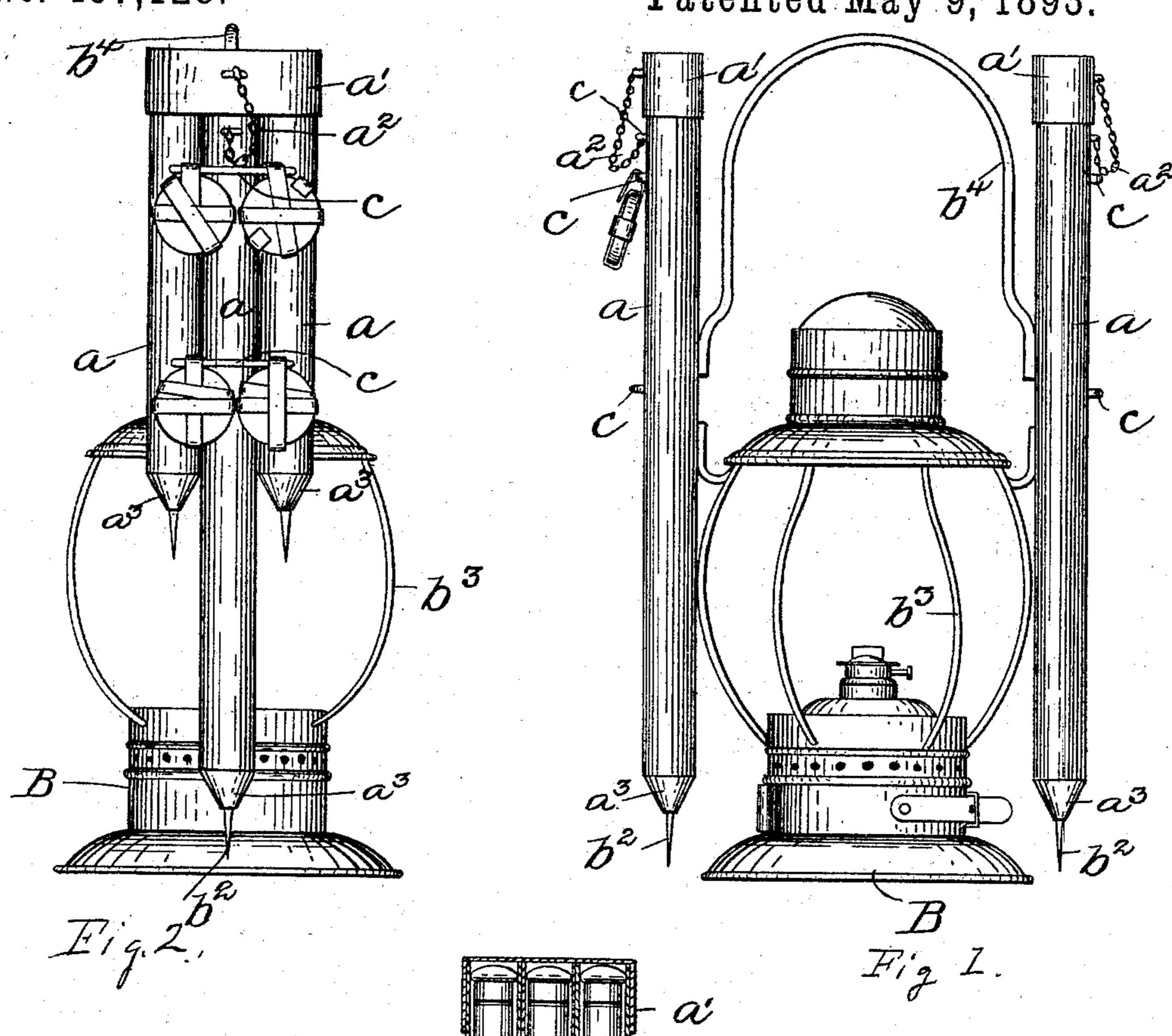
## J. J. PURCELL. SIGNALING APPARATUS.







 $\frac{b}{b} - \frac{b}{a^3}$   $\frac{a^3}{a^4}$   $\frac{a^3}{a^4}$ 

Witnesses: John Rhow.

By Maynahar Much This attorneys,

## UNITED STATES PATENT OFFICE.

JAMES J. PURCELL, OF BOSTON, ASSIGNOR OF ONE-HALF TO WILLIAM HENRY CROSSON, OF MIDDLEBOROUGH, MASSACHUSETTS.

## SIGNALING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 497,128, dated May 9, 1893.

Application filed November 3, 1892. Serial No. 450,852. (No model.)

To all whom it may concern:

Be it known that I, James J. Purcell, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Signaling Apparatus for Brakemen, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of my apparatus; ro Fig. 2 a side view of the same, and Fig. 3 a section illustrating three tubes, each with a

The signals needed by a brakeman are such as to attract the attention of the engineer of a train, and are now commonly a light in a colored shade, and simple fireworks, consisting either of a composition in a tube, which when ignited burns and gives a proper light commonly called fusees or an explosive compound which is in a case capable of being attached to the rails and when so attached exploded by the wheels, commonly called torpedoes; and my invention is a holder for these and like signals, and consists in a frame, with a base upon which it can stand, tubes attached on opposite sides of the frame and a

handle, by which the article can be carried as will now be more fully described.

In the drawings the base B and the frame  $b^3$  support the tubes a, each of which has a 30 conical lower end, with a hole  $a^4$  through it, in order that the spikes  $a^3$  usually used with the fusees may project. The handle  $b^4$  completes the article, but in addition cross wires c are desirable in all cases where torpedoes 35 are to be used. The covers a' connected by chains  $a^2$  serve to close the mouths of the tubes. The frame  $b^3$  will serve as the guard frame of a lantern, and the tubes a as fusee holders; while the torpedoes can be convented in the cross wires a'0.

What I claim is—
The signal holder above described comprising the base, the frame on that base, the tubes
attached on opposite sides of the frame, and 45
the handle, arranged substantially as set
forth.

JAMES J. PURCELL.

Witnesses:

JONATHAN CILLEY, JOHN R. SNOW.