

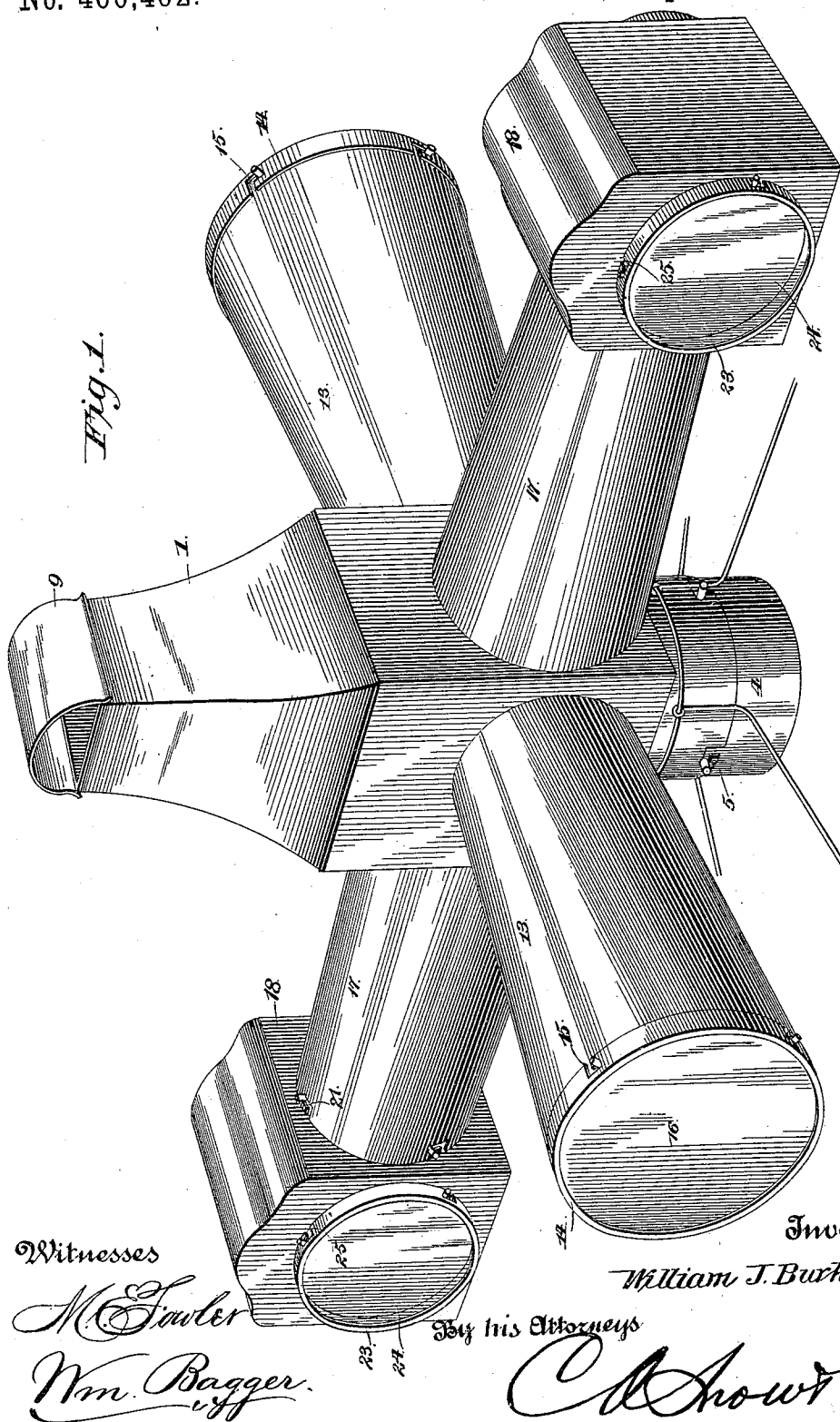
(No Model.)

3 Sheets—Sheet 1.

W. J. BURKE.
REFLECTING LIGHT.

No. 460,462.

Patented Sept. 29, 1891.



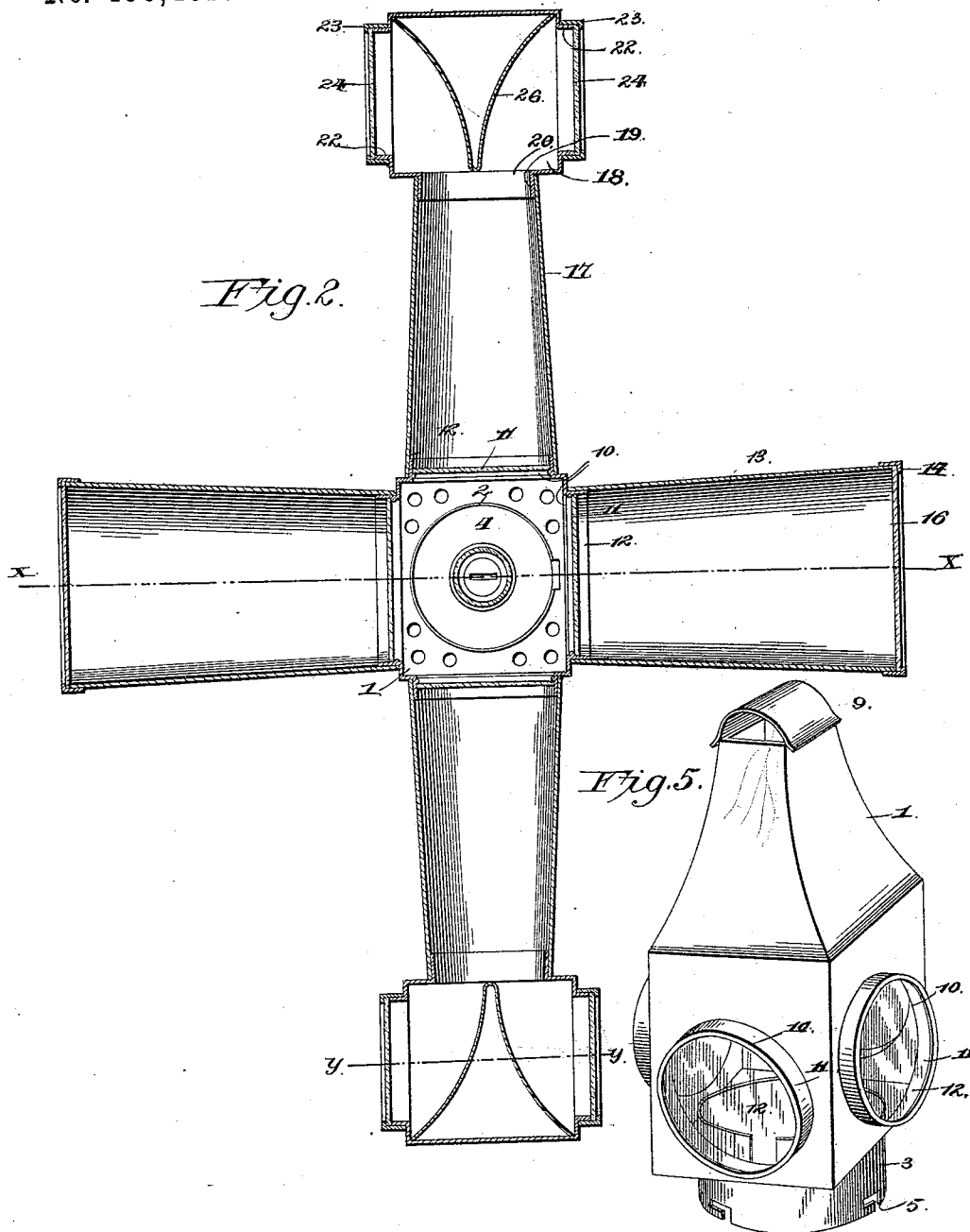
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3 Sheets—Sheet 2

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Witnesses
M. Fowler
Wm. Bagger.

Inventor
William J. Burke
By his Attorneys
C. A. Snow & Co.

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3 Sheets—Sheet 3.

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Fig. 3.

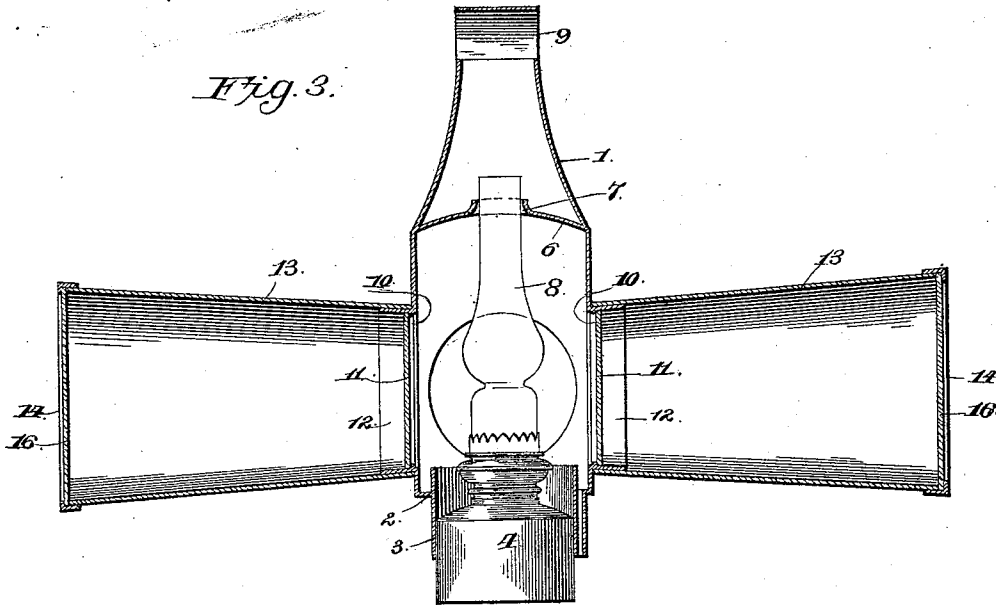
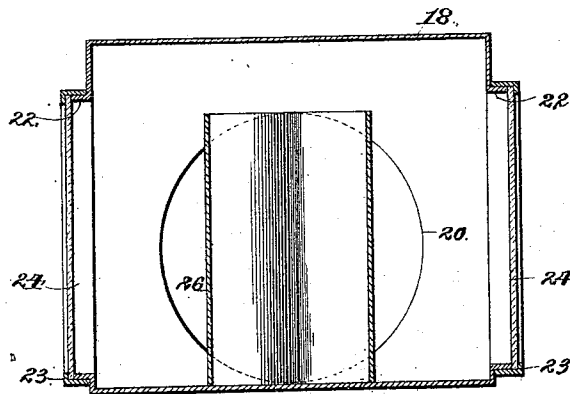


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM J. BURKE, OF SEATTLE, WASHINGTON.

REFLECTING-LIGHT.

SPECIFICATION forming part of Letters Patent No. 460,462, dated September 29, 1891.

Application filed November 26, 1889. Renewed January 30, 1891. Serial No. 379,654. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. BURKE, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Reflecting-Light, of which the following is a specification.

This invention relates to reflecting-lights or signals for railroad-cars and for similar purposes; and it consists in a multiple reflector, by means of which a single light may be duplicated a number of times, so as to show a number of signals for the production of which by ordinary methods several separate and distinct lights would be required.

The invention further consists in the improved construction and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of a reflecting-light embodying my improvements and adapted to be applied to the cupola of a caboose. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a longitudinal vertical sectional view taken on the line *x x* in Fig. 2. Fig. 4 is a longitudinal vertical sectional view taken on the line *y y* in Fig. 2. Fig. 5 is a detail perspective view of the main lantern-casing.

Like numerals of reference indicate like parts in all the figures.

1 designates the main lantern-casing, the bottom of which is provided with a circular opening 2, surrounded by an annular flange 3, within which the lamp 4, which is of ordinary construction, may be mounted and secured by means of bayonet-fastenings 5. The top of the lantern-casing is provided with a horizontal concave reflector 6, having a central opening 7 for the passage of the lamp-chimney 8, and the upper end of the casing has a cap 9, which is open at both ends for the escape of the products of combustion. The four sides of the main lantern-casing are provided with circular openings 10, in which glasses 11 are fitted. The said circular openings are surrounded by the annular flanges 12 for the purpose to be hereinafter set forth. The main lantern-casing is adapted to be fitted centrally in the top of the cupola of a caboose, where it remains as a permanent fix-

ture. Its bottom flange 3, however, extends through the roof of the cupola, in order that the lamp may be conveniently removed and replaced from the inside of the caboose.

To the annular flanges 12 upon the front and rear sides of the main lantern-casing are detachably connected the frustum-shaped tubes 13 13, to the outer ends of which caps 14 are secured by means of bayonet-joints 15. The caps 14 have glasses 16, which may be of different colors, according to the signals which are to be conveyed. The inner sides of the tubes 13 should be brightly polished in order that the said tubes may act as reflectors to reflect the light from the lamp placed within the main lantern-casing. The tubes 13 are made tapering from the lantern-casing in an outward direction, as will be clearly seen by reference to Fig. 2 of the drawings.

To the flanges 12 on opposite sides of the main lantern-casing are detachably secured the tubes 17, which converge toward their outer ends, and which are provided at their outer ends with rectangular casings 18, having laterally-extending annular flanges 19, surrounding openings 20, and provided with bayonet-joints 21, by means of which they may be connected detachably with the outer ends of the tubes 17. The front and rear sides of the casings 18 are provided with flanges 22, upon which caps 23, having glasses 24, are mounted detachably by means of bayonet-joints 25. Within the casings 18 are placed the V-shaped vertical reflectors 26, which serve to throw the light reflected through the tubes 17 in a forward and rearward direction.

It will be understood from the construction of the device as herein described that the light from the single lamp placed in the main lantern-casing will be reflected forwardly and rearwardly through the reflecting-tubes attached to the front and rear sides of said lantern-casing and laterally through the reflecting-tubes attached to the sides of said casing. The V-shaped reflectors mounted in the casings at the outer ends of said laterally-extending tubes likewise reflect the light forwardly and rearwardly through the said supplemental casings, thus duplicating the light to the extent that six separate and distinct signals are produced from the single light

mounted in the main lantern-casing. It is obvious that by changing the colors of the glasses the signals may be changed; also, that a non-transparent cap may be substituted for any one of the transparent caps, for any one of the supplementary reflecting-casings, or for any one of the reflecting-tubes, as occasion may require. The reflecting-tubes are made detachable from the main lantern-casing, as described, partly for the purpose of enabling such changes and substitutions to be conveniently made and partly to enable their interior reflecting-surfaces to be conveniently cleaned and polished, when desired.

15 In the manufacture of my invention I do not limit myself to the precise construction and arrangement of details herein described, but reserve the right to any modifications which may be resorted to without departing from the spirit of my invention.

20 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

25 1. The combination, with the main lantern-casing, of the radially-extending reflecting-tubes, the casings mounted detachably at the outer ends of said reflecting-tube and having

openings in their front and rear sides, the caps mounted detachably upon the flanges surrounding the said openings and having colored glasses, and the V-shaped reflectors mounted vertically in the said casings, substantially as and for the purpose set forth.

2. The combination, with the main lantern-casing, of a supplemental reflecting-casing having front and rear openings, a V-shaped reflector mounted in the supplemental casing, and a connecting-tube, substantially as set forth.

3. The combination of the main casing, the horizontal concave reflector having an opening for the passage of the lamp-chimney, the supplemental reflecting-casings, the V-shaped reflectors mounted in the latter, and the connecting-tubes, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

W. J. BURKE

Witnesses:

JAS. HAMILTON LEWIS,
S. E. BOYNTON.