

C. I. WILLIAMS.

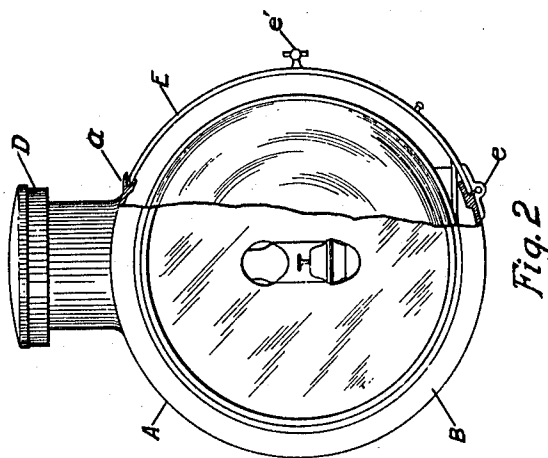
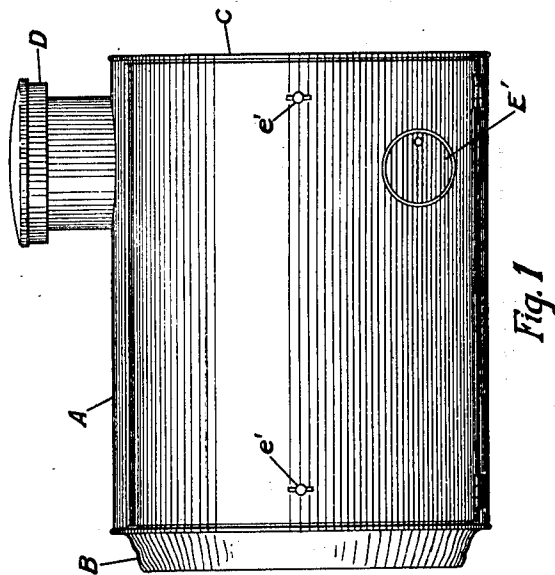
HEADLIGHT.

APPLICATION FILED APR. 1, 1911.

1,035,504.

Patented Aug. 13, 1912.

2 SHEETS-SHEET 1.



WITNESSES:

M. R. Kennan
R. Wilder

INVENTOR
Charles I. Williams.

BY *Reisley & Love*
ATTORNEYS

C. I. WILLIAMS.

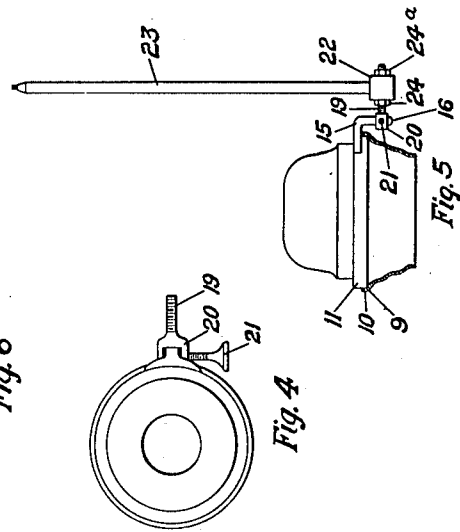
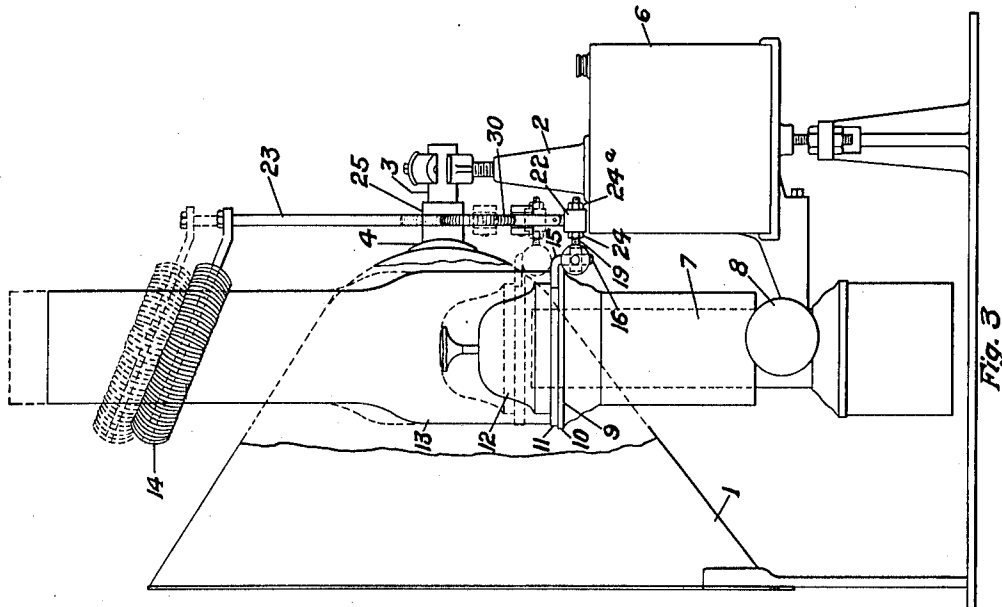
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UNITED STATES PATENT OFFICE.

CHARLES I. WILLIAMS, OF UTICA, NEW YORK.

HEADLIGHT.

1,035,504.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed April 1, 1911. Serial No. 618,475.

To all whom it may concern:

Be it known that I, CHARLES I. WILLIAMS, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Headlights, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to an improved headlight suitable for a locomotive, and I declare that the following is a full, clear, concise and exact description thereof, sufficient to enable one skilled in the art to make and use the same, reference being had to the accompanying drawings, in which like reference characters refer to like parts throughout.

The invention consists in the several features herein disclosed and illustrated in the drawings herewith, and in the several combinations of features.

The object of the invention is to provide a headlight which is adapted for convenient use under conditions created by the employment of larger locomotives and those of different styles, whereby it is more inconvenient to get at the headlight.

In the older styles of locomotives the headlight was frequently carried on the top of the boiler and in a position where it could be readily reached, both at the front and side, if desired. As locomotive boilers are now larger it is common practice to put the headlight at the front end of the boiler, sometimes supporting it on brackets attached to the boiler head and other times to the number-plate, or on a bracket beneath the number-plate. The position necessarily renders it inconvenient, if not impossible, in such positions to get at the headlight at all points to give it proper attention.

It is the purpose of my invention to construct a headlight which is more readily accessible for cleaning, lighting and the like, and it is with that end in view that I have invented the headlight herein disclosed.

In the drawings, Figure 1 is a side view of a headlight; Fig. 2 is a partial end view; Fig. 3 is a side view in section, showing the interior of a headlight; Fig. 4 is a plan view of a portion shown in Fig. 3; Fig. 5

is a side view of the same and additional parts, portions being broken away or shown in section, and Fig. 6 is a side view of a different portion of the parts shown in Fig. 3.

Referring to the figures in detail, A represents a cylindrical casing of a diameter necessary for the headlight, having at the end properly secured thereto the head piece or projection B which it is understood includes the front glass. At the opposite end is the back-plate C by which the lamp can be secured to the front end of the boiler. It will be understood that the headlight may also be supported by brackets or otherwise in any suitable manner.

D is the ventilator on the top of the headlight or casing of the headlight. The casing A is not made in the form of a complete circle, but is broken away or made in two portions consisting of the portion A and the portion E which is hinged at *e* to the portion A and has means of locking the hinged portion shut, the same being indicated by *e'*, the showing being intended to be inclusive of any suitable means for securing the door E closed. The peculiar feature of advantage in this construction lies in the fact that the door E consists practically of one-half of the casing, so that when it is opened, the entire interior parts of the lamp are perfectly accessible to the operator, lying completely exposed immediately before him, instead of being at a distance, to be reached only through a small opening and at a distance from the opening.

a is an overhang or water-drip which the door E clears when swung open, but which overhangs the edge of the door E when closed. In short, I have provided a cylindrical casing made in two portions, one hingedly secured to the other at a point in the completed structure below the line of support of the interior portions of the headlight.

At *E'* is a handhole to be opened and closed by the operator, so that he can reach for the lighting and adjusting the burner.

Referring to Fig. 3, 1 represents a reflector suitably supported in the customary manner at its forward end, and at the rearward end supported by means of a backstand 2, the arm back stem 3 and the plate

4. As these are familiar and not part of my invention they need not be more specifically described.

5 The oil-tank is represented at 6; the wick-tube at 7; the wick adjustment at 8, and at 9 is represented the chimney seat which is formed of ring-shape with its edge upturned, as at 10.

10 At 11 is an upper member of the burner consisting of a ring which fits into the ring 10 which carries the cap deflector 12 and other usual parts. The ring 11 has a recess as is common for the support of the chimney 13. The upper part of the chimney is supported as at 14 by a chimney holder mounted on a lifting rod, as will be more fully described. It will thus be seen that the assemblage of burner members is divided into 15 two portions, an upper and a lower, the upper one fitting down into the lower one when in operative position. On the upper member 11 is brazed or secured a bracket 15 which has a downwardly depending arm 16. This arm is supported or carried by an arm 19, the support of the arm 16 being in a block 20 which is provided with a set-screw at 21 so that the member 11 can be adjusted in a horizontal plane. The arm 19 is supported in a block at the lower end of a lifting-rod, the block being shown at 22 and the lifting-rod at 23. The arm 19 is screw-threaded, as plainly seen, and has set-nuts 24 and 24^a on the opposite sides of the block 22 so that the arm 19 can be adjusted longitudinally. 35

The block 3 has a squared portion 25 which has a square bore through which the lifting-rod 23, which is square or angular, passes and is adapted to move up and down. On the lifting-rod 23 is a block 27 adjustably secured by set-screw 28. Pivottally mounted at 29 in block 27 is a swinging lock or catch indicated by 30, having a lug 31 to engage the under surface of squared portion 25 or the upper surface, as desired. A 45 spring 32 is provided to hold the lock in engaging position. It will thus be seen that the lifting-rod 23 is vertically movable in the fixed block or squared portion 25 and carries at its end the arm 19 which in turn carries the bracket 15 which supports the chimney and its supporting parts. By pulling out the lock 30 the lifting-rod 23 may be raised which lifts also the ring 11 and the chimney 13, and then by engaging the 55 lock on the block 25 these parts can be held in upward position so that the wick can be trimmed or lighted and other attention given to the burner, with both hands free, after which the lock can be released and the parts restored to their operative position and secured by engagement of the latch under the block 25. It will also be observed that in the construction shown I have provided for all adjustment so that the mov- 65

able parts of the lamp when raised and lowered are sure to find a proper place and are secured therein by engagement of the lock 30.

It will be understood by those acquainted with the art that the interior portions of the headlight can be readily removed by 70 drawing them out of the side of the casing through the door E, the hanging of the side door being below the line of the interior support of the reflector and its associated members as indicated by the dotted lines in Fig. 2. 75

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A headlight having in combination a 80 base, a stationary reflector mounted thereon, burner members comprising an upper portion and a lower portion, the former being adjustable and the latter being fixed, and means to adjust and secure the former relatively to the latter. 85

2. A headlight comprising a parabolic reflector and burner members mounted relative thereto, the said burner members comprising a fixed lower portion and a movable upper portion including the cap-deflector and chimney, the said upper portion being mounted to permit of adjustment in a horizontal plane and adjustably mounted on a 90 lifting rod to allow of adjustment on said lifting rod, the same being vertically movable relatively to a fixed portion of the apparatus and a lock carried by the lifting rod whereby to lock the lifting-rod and its said 95 members in an upper position and in a lower position for the operation of the device, substantially as shown. 100

3. A headlight comprising a reflector, a burner passing through the reflector, the 105 burner being formed with a fixed lower part and a movable upper part, and bracket means adjustably mounted and adjustably supporting the upper members whereby to determine the position of the upper members while in operation, and a lifting-rod supporting the bracket members and means for locking the lifting-rod in closed position for the operation of the burner and in 110 upper position for the trimming of the wick, substantially as shown. 115

4. In a headlight the combination with a casing of a reflector mounted on the base, burner members mounted on the base and passing through the reflector, the burner 120 members consisting of a fixed lower portion and a movable upper portion, means to fix the movable upper portion for the operation of the lamp and to lift and secure it in lifted position for the trimming and lighting the lamp, and a hand-hole in the casing adjacent the lamp for access thereto. 125

5. In a headlight having a reflector, a chimney-seat within the reflector, a vertically movable rod and means connecting the 130

chimney-seat with the rod and adjustable whereby to position the chimney-seat horizontally.

5 6. In a lamp, a reflector, a burner comprising a lower wick portion and an upper or chimney portion within the walls of the reflector, a stem outside said reflector and means for movably supporting the upper

portion of the burner on said stem relatively to the lower portion.

10

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHARLES I. WILLIAMS.

Witnesses:

T. L. WILDER,

HENRY M. LOVE.
