

No. 683,243.

Patented Sept. 24, 1901.

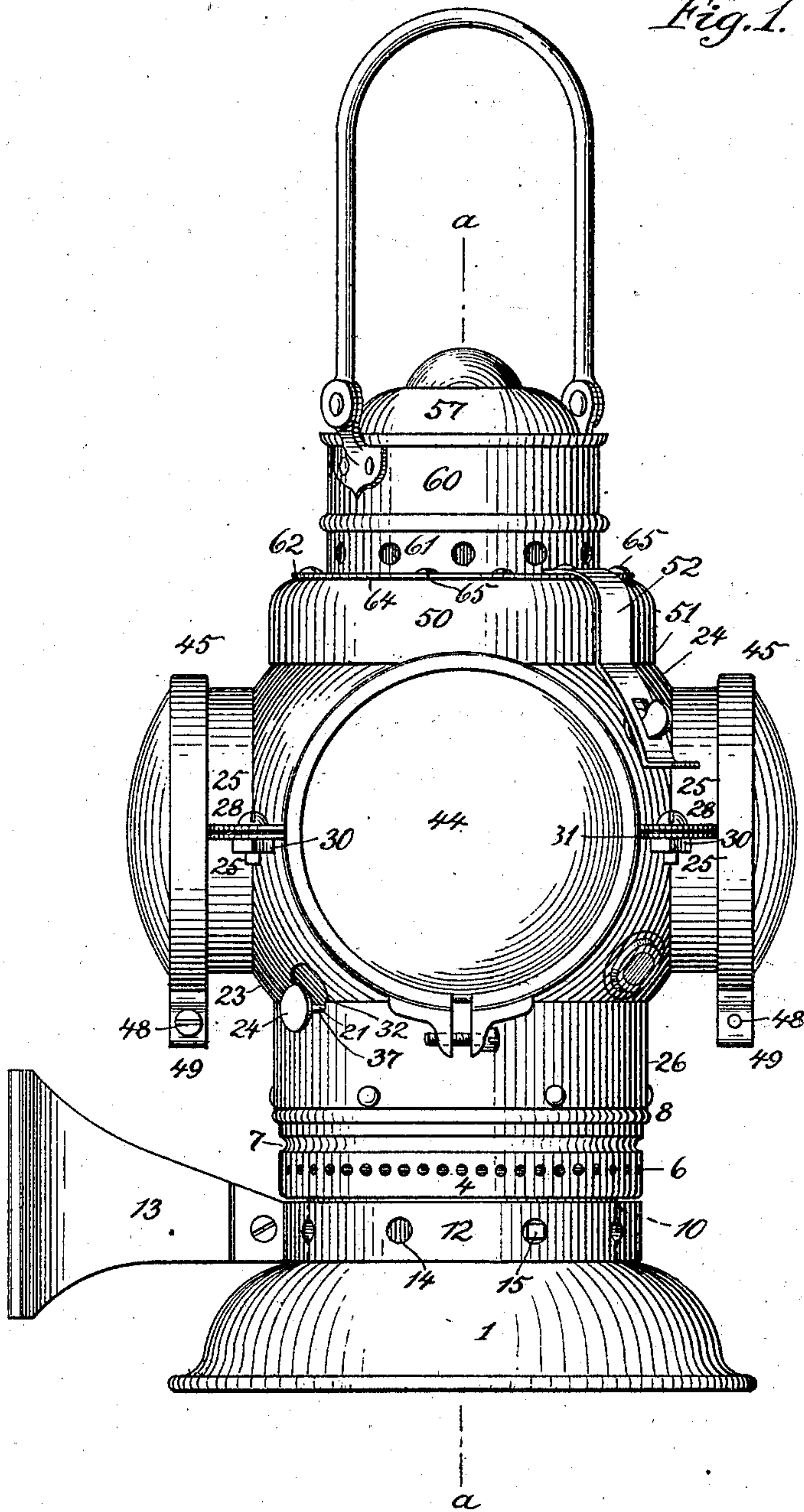
R. J. ARMOUR.
SIGNAL LAMP.

(Application filed Mar. 24, 1897.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



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2 Sheets—Sheet 2.

Fig. 3.

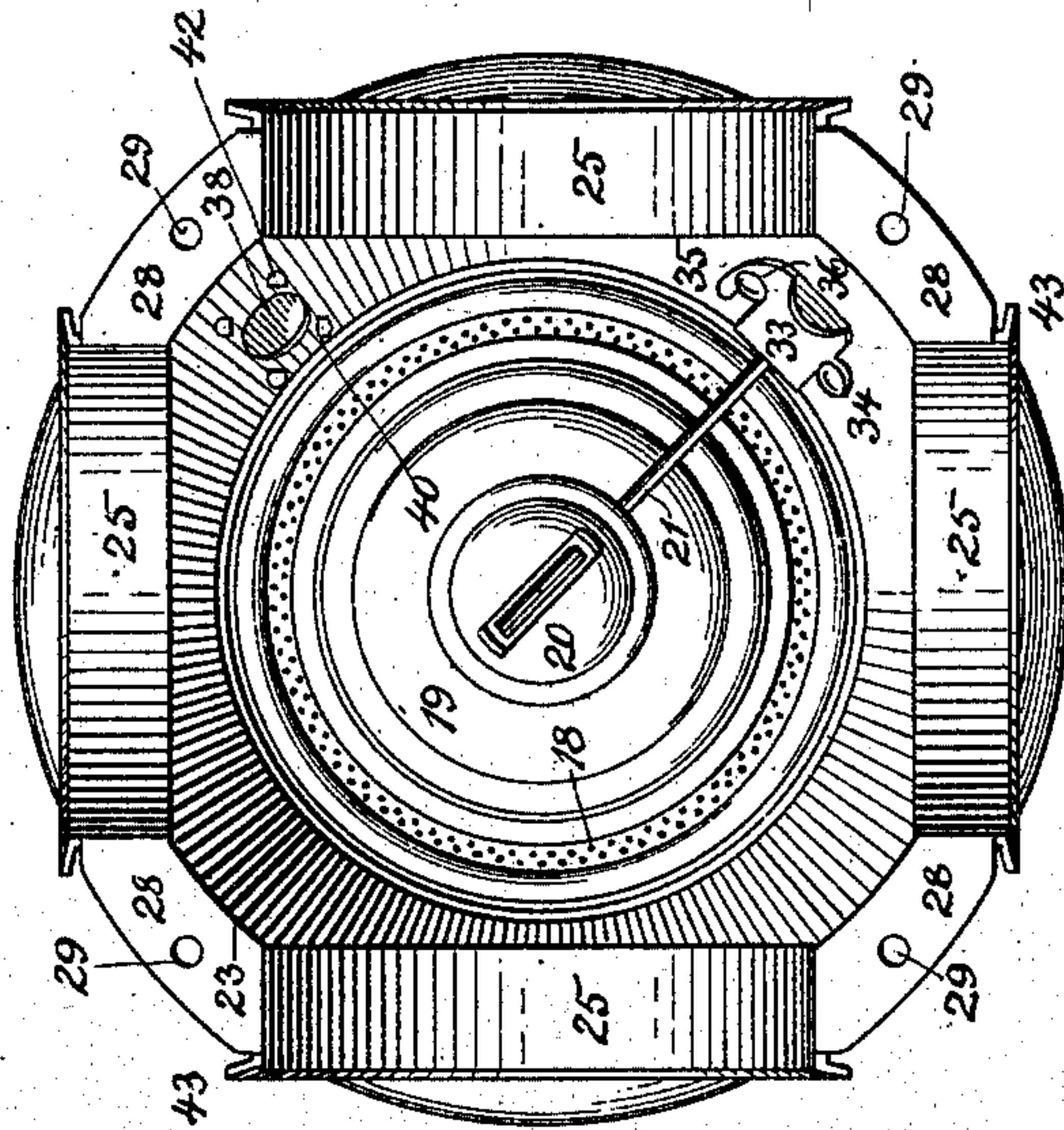
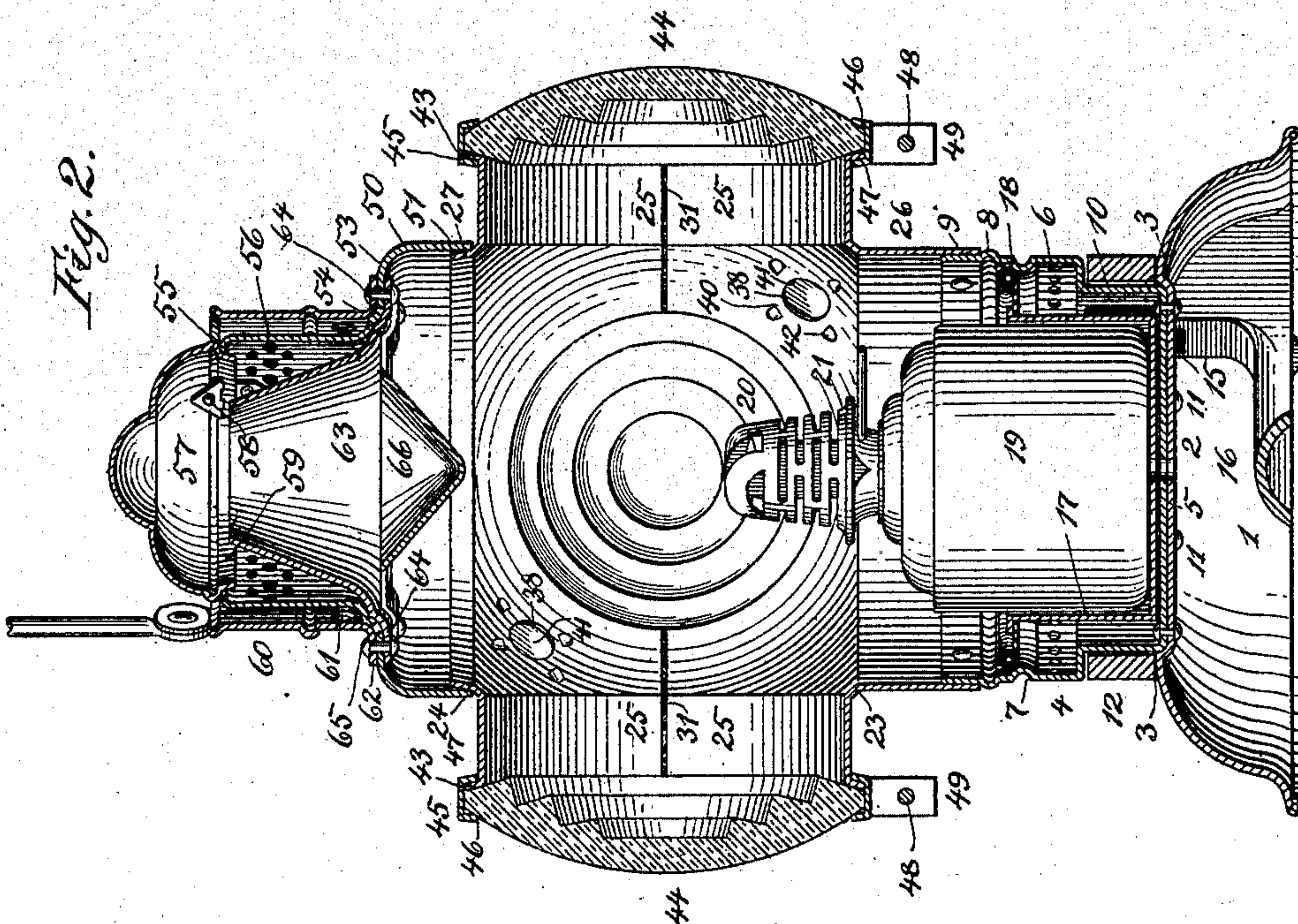


Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT J. ARMOUR, OF NEWARK, NEW JERSEY.

SIGNAL-LAMP.

SPECIFICATION forming part of Letters Patent No. 683,243, dated September 24, 1901.

Application filed March 24, 1897. Serial No. 629,048. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. ARMOUR, a citizen of the United States, residing in Newark, Essex county, State of New Jersey, have
5 invented a new and useful Improvement in Signal-Lamps, of which the following is a specification.

My invention relates especially to the construction and arrangement of railway-signal
10 lamps; and has for its object the provision of a simple, strong, and durable lamp, the parts whereof are preferably formed of sheet-steel, all being secured together and assembled without the use of solder.

15 To attain the desired end, my invention involves certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described and then
20 pointed out in the claims.

In the accompanying drawings, forming a part hereof, Figure 1 is a side elevation of a lamp embodying my invention. Fig. 2 is a
25 vertical sectional view at line *a a* of Fig. 1. Fig. 3 is a plan view of the lamp with the upper portion removed.

Similar numerals of reference, wherever they occur, indicate corresponding parts in all the figures.

30 1 is the base of the lamp, made of a single piece of metal and having a depressed top 2, the edge forming a ring 3.

4 is the base of the lamp-body, made of a single piece of metal having a bottom 5,
35 flanged ring 10, perforations 6, inwardly-projecting bead 7, and an outwardly-projecting bead 8, surmounted by a ring or shoulder 9, arranged to receive the lower edge of the lamp-body proper. By this arrangement the
40 base 1 and the body-base 4 may be secured together by rivets 11, the bottom 5 of the base 4 fitting nicely within the ring 3, adding materially to the strength of the completed lamp. The portion of the metal of the base
45 1 at its top and the flanged ring 10 form an annulus for the reception of an encircling ring 12, projecting from a bracket 13, affording a firm and adequate support for the lamp and permitting its rotation for the purpose
50 of changing the color of lens presented. The ring 12 is perforated, as at 14, for engaging with a spring-bolt 15, mounted beneath the

base 1 and arranged to engage in one of the perforations 14.

16 is a handpiece by means of which the
55 lamp may be rotated.

17 is a cup provided at its upper edge with a perforated flange 18, arranged to receive and hold in place an oil-pot 19.

20 is the burner, provided with an elongated
60 ratchet-shaft 21, projecting through the lamp-body and bearing a manipulating-button 22. This construction permits the free removal of the oil-pot and the cup and perforated plate for the purpose of filling and
65 trimming and for cleaning.

The lamp-body proper is formed of two parts 23 and 24, each part consisting of an incomplete hemisphere, from which project
70 semicircular flanges 25 and complete flanges or rings 26 and 27. At right angles to the semicircles 25 are segmental flanges 28, perforated at 29 for the reception of connecting-bolts or equivalent devices 30. 31 is red lead
75 or other suitable material constituting a packing between the segmental flanges 28. At 32 the curved breast of the part 23 of the lamp-body is perforated for the passage of the button 22 upon the ratchet-shaft.

33 is a door pivoted within the breast at 34
80 and having at one side a hook 35, which passes over and engages with a stud 36 when the door is closed. The bottom of the perforation 32 is slightly cut away at 37 for the passage of the ratchet-shaft.
85

It will be observed that the burner of the lamp is arranged in the horizontal zone of the curved breast portion 23 of the lamp-body and that the wick-raiser shaft 21 passes out
90 through the aperture 32 therein, the upper end of which is enlarged for the passage of the button 22 at the end of the shaft 21. This construction permits the removal of the oil-pot and burner from its seat by a direct upward movement without necessitat-
95 ing a tilting or turning of the oil-pot in any direction in order to move the shaft 21 from the aperture 32. When the burner is in place and the lamp in use, the door 33 closes the aperture 32, as will be understood.
100

The portions 23 and 24 of the lamp-body are perforated, as at 38.

39 is an annulus of metal provided with tongues or prongs 42, arranged to pass through

slots 40, being bent over within the lamp-body, the ring holding in place a transparent disk 41, the parts being all securely held without the use of solder, thus providing simple and effective means for viewing the interior of the lamp.

At the outer edges of the semicircular flanges 25, which extend outward beyond the horizontal flanges 28, are flaring flanges 43, against which the lenses 44 rest, as particularly shown in Fig. 2 of the drawings.

45 represents divided rings having inwardly-extending lips 46 and 47, arranged to pass over the flanges 43 and the front of a lens, the ring being adjustably held together by means of a screw or bolt 48 engaging with lugs 49 at the meeting ends of the metal of the ring. These divided rings 45 not only act as lens-holders, whereby the lenses may be easily inserted or removed at pleasure, each independent of the others, but also serve as binding devices to hold the two portions of the lamp-body securely together in addition to the bolts 30.

50 is a ring-piece, the lower edge 51 whereof fits over the flange 27 at the upper portion of the lamp-body, being hinged to the body at one side and provided at the other side with a securing-catch 52. The ring-piece 50 is bent in horizontally at 53 and is provided with a bead 54. The metal then extends vertically, terminating in a turned edge 55.

56 represents ventilation-perforations in the ring-piece 50.

57 is a dome hinged to the ring-piece 50 at 58 and having an inwardly-projecting lip 59, which fits nicely within the turned edge 55.

60 is an exterior ventilator-ring, perforated at 61 and having a horizontal flange 62, which fits over the bead 54.

63 is a conical deflecting-ring placed within the ring-piece 50, having a flange 64, the parts 60, 50, and 63 being connected together by means of rivets 65, which pass through all three of said parts. 66 is a deflecting-cone held beneath the mouth of the ring 63, all of said parts being firmly united and secured without the use of solder.

The parts last described constitute a movable top for the lamp-body which when turned back on its hinge opens the lamp-body above the oil-pot receptacle and the burner-chamber to permit easy access thereto and the removal of the oil-pot and burner by direct upward movement.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a lamp of the character herein specified, a body-base formed of a single piece of metal, having a flanged ring near the bottom, an inwardly-projecting bead, an outwardly-projecting bead, and a straight ring or shoulder above said last-mentioned bead, substantially as shown and described.

2. A lamp-body having a receptacle for an oil-pot in its lower portion, and a movable top portion whereby access may be had to the interior of the lamp-body from above, and having intermediate the said portions of the body an outwardly-curved breast portion which is perforated at 32 for the passage of the shaft and button of the wick-raiser, such perforation being enlarged at its upper, outer end; in combination with an oil-pot supported in the lower part of the lamp-body, and a burner carried thereby and provided with a wick-raising shaft, the burner being arranged in the zone of the said curved breast, and the said wick-raising shaft extending outward through the said opening, 32, whereby the burner and oil-pot may be removed by direct upward movement, substantially as set forth.

3. In a lamp-body having an outwardly-curved breast above the receptacle for the oil-pot, an opening therein for the passage of the wick-shaft button when the oil-pot is inserted or removed vertically, in combination with a pivoted door for closing said opening, arranged substantially as shown and described.

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