(No Model.)

W. S. HAMM.

RAILWAY LANTERN.

No. 549,314. Patented Nov. 5, 1895.

Fig. 1.

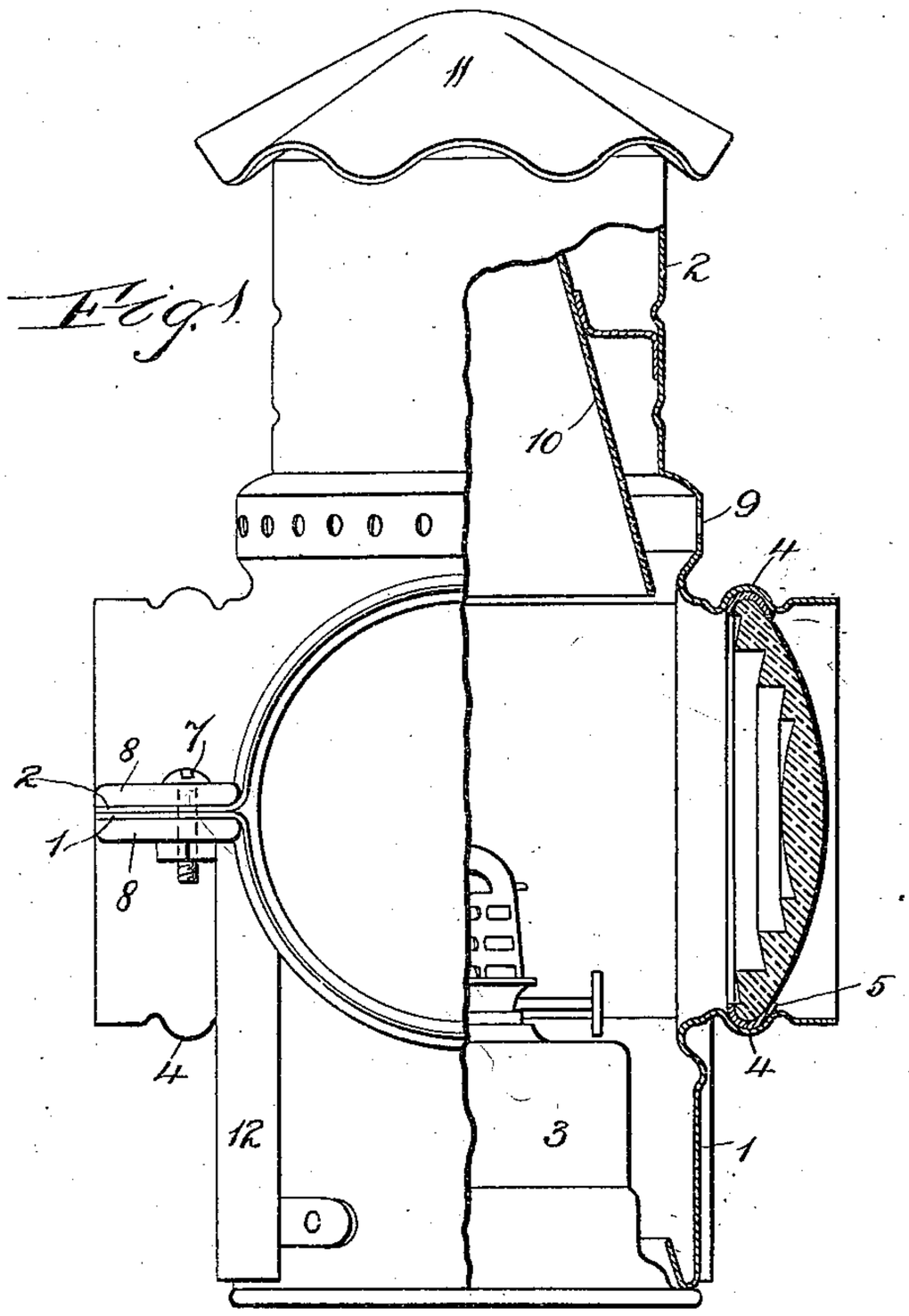


Fig. 4.

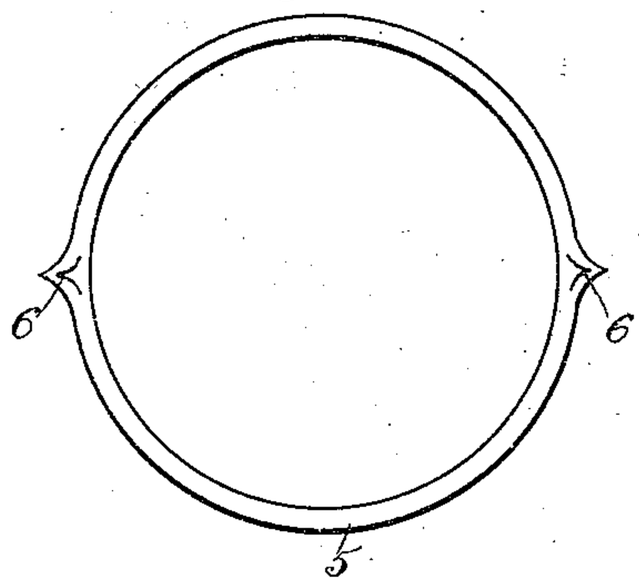


Fig. 2.

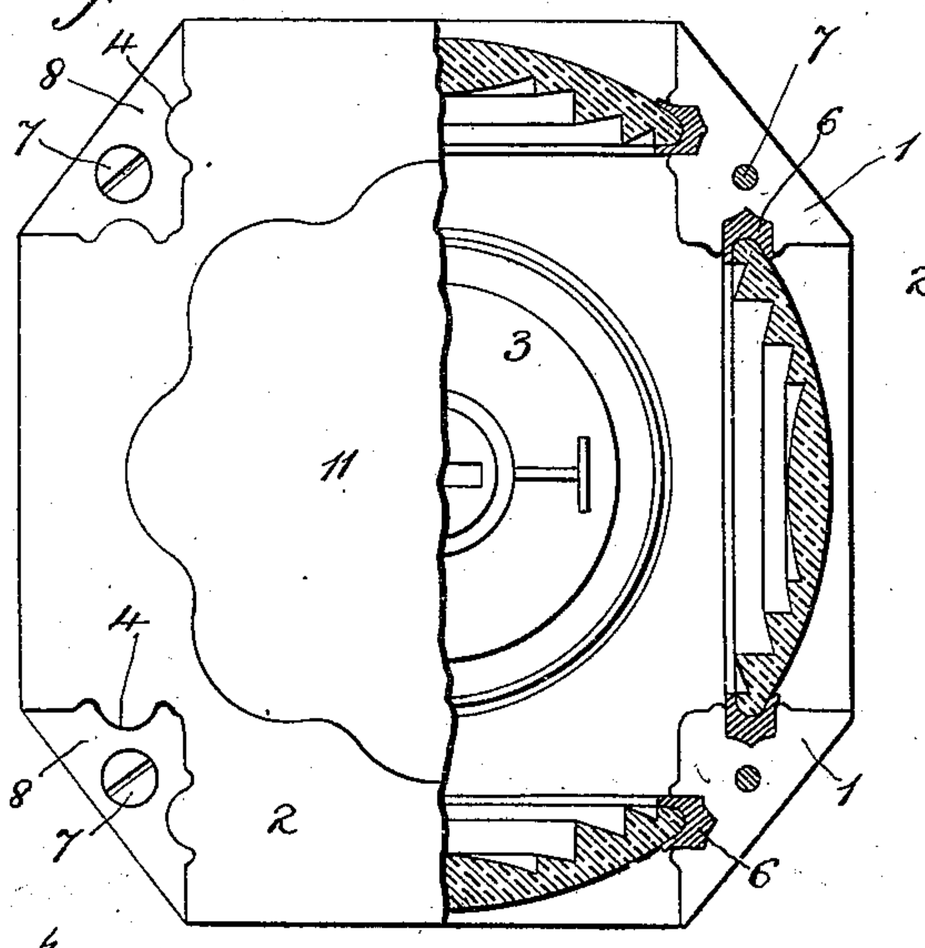
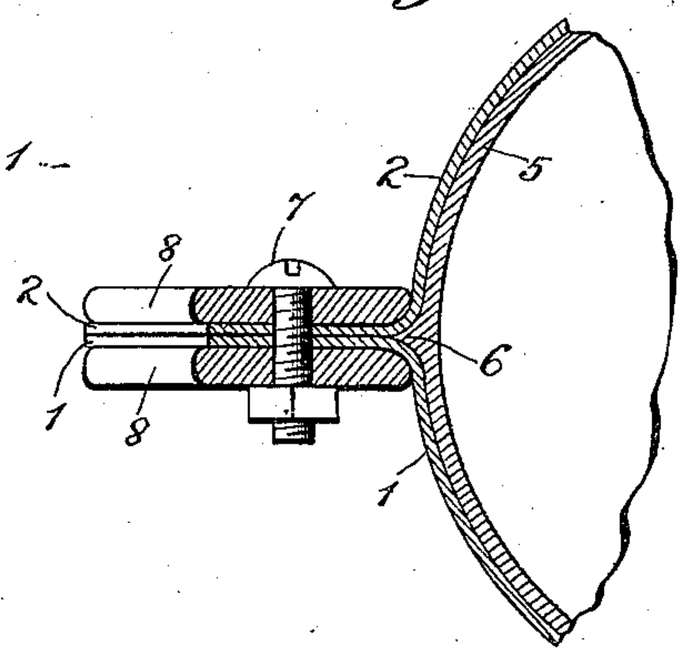


Fig. 3.



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UNITED STATES PATENT OFFICE.

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RAILWAY-LANTERN.

SPECIFICATION forming part of Letters Patent No. 549,314, dated November 5, 1895.

Application filed February 20, 1893. Serial No. 463,040. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HAMM, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lanterns for Railway Switches, Signals, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to lanterns such as are mounted upon railway-switch stands for the purpose of indicating the position of switches, and which are placed upon railway cars or engines for indicating the character of the trains, and which are used in various other signaling and indicating capacities in railway and analogous services.

Among the primary objects of my invention is included that of producing a lantern the casing of which shall possess the utmost simplicity and at the same time strength and durability of construction and which shall be so formed as to be readily struck up by dies, thus producing an inexpensive and at the same time efficient lantern-casing. A further primary object of my invention is to produce a lantern-casing the joint between the sections or members of which shall be perfectly tight, so as to preclude all flickering or extinguishment of the flame by winds, and which shall, furthermore, possess a steady and uniform draft under all atmospheric conditions.

To the above purposes and such others as may appear from the ensuing description, my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

The more precise nature of my invention will be better understood when described with reference to the accompanying drawings, in which—

Figure 1 is a view partly in side elevation and partly in transverse vertical section of a lantern embodying my invention. Fig. 2 is a view of the lantern, partly in plan and partly in horizontal section. Fig. 3 is an enlarged view, in horizontal section, of the closing attachments at the joint of the lantern-sections. Fig. 4 is an enlarged detached view of one of the lens-holding rings.

In the said drawings, 1 designates the lower portion or section of the lantern-casing, and 2 designates the upper portion or section of said casing, the casing being shown as of cylindrical form at its lower and upper parts and as having four lens-sockets arranged in two opposite and intermediate pairs and placed midway of the height of the lantern-casing.

I desire it to be understood that the precise cylindrical form of the upper and lower sections of the casing is not absolutely essential to the spirit of my invention, nor is the precise described number of lens-sockets essential, these matters being susceptible of considerable variation, according to the particular uses to which the lantern may be applied in any given instance. However, in any event the upper and lower sections are preferably formed of sheet metal, desirably steel, and are stamped up from blanks in suitable dies, so that when the two sections are properly assembled together a line of contact shall extend horizontally across and around the casing midway of the height of the lens-sockets. The two sections of the lantern-casing are secured together by means of vertical bolts 7, or rivets, screws, or other equivalent devices, and such bolts are shown as passing through flanges or lips protruding outward at the meeting edges of the two sections between each two adjacent lens-sockets. In order to prevent the thin metal at these points from bending upward, thin stiffening-pieces 8, separate from the lantern-body, are used to envelop the projecting flanges or lips of the sections, these stiffening-pieces being in the example illustrated of triangular form, and the bolts 7 or rivets or equivalent devices passing through and securing the stiffening-pieces in position.

It will thus be seen that I have produced a lantern-casing which is composed of but few parts and which is therefore inexpensive to produce, but which is nevertheless strong and durable in its character. I have shown an oil-reservoir 3 with a suitable burner as placed in the lower casing-section 1 and

a conical draft-guard 10 as placed within the upper casing-section 2, this upper section being also formed with air-inlet openings 9, and the products of combustion from the flame being permitted to escape beneath the cap at the top of the casing.

In order to tightly seat the lenses in their sockets, so as to prevent any such leakage of air into the casing as will cause flickering or extinguishment of the flame, I employ a ring 5, of rubber or other suitable flexible material, this ring being concavo-convex in cross-section and at its concave inner side receiving and closely embracing the edge of the lens. The convex outer side of the ring enters a transverse annular groove 4, formed in the inner part of the lens-socket, and the ring is also formed with two oppositely-disposed and outwardly-extending teats 6 for entrance between the lips or flanges of the adjacent parts of the casing-joint. There are, of course, as many of the rings 5 as there are lenses, and it will be seen that a perfectly tight, strong, and at the same time durable and simple packing is provided for each lens and no flickering or extinguishment of the flame can occur even in very high winds.

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

A lantern-casing composed of a lower and an upper section each of sheet-metal and having registering half-sections of the lens-sockets formed at the point of juncture of said casing-section, external flanges formed upon the sections at such points of juncture, socket-grooves for the lenses formed in the socket-sections, and elastic packing-rings for embracing the edges of the lenses and entering the socket-grooves; said rings having external teats for entering between the flanges at the line of juncture between the socket-sections, substantially as set forth.

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