

965,551.

I. H. ATWOOD.
VEHICLE LAMP.
APPLICATION FILED APR. 27, 1910.

Patented July 26, 1910.
2 SHEETS—SHEET 1.

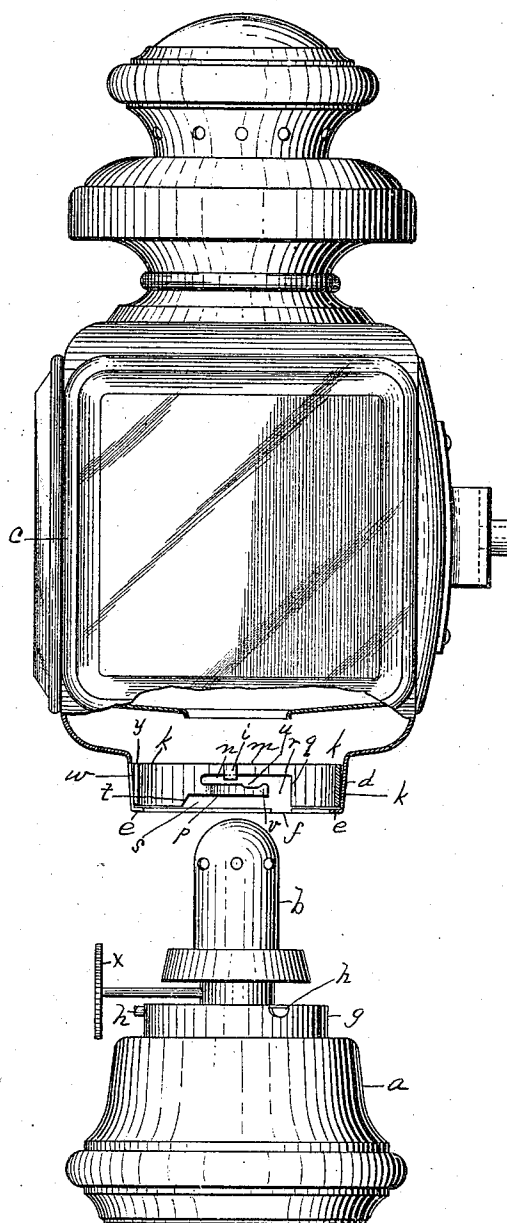


FIG. 1.

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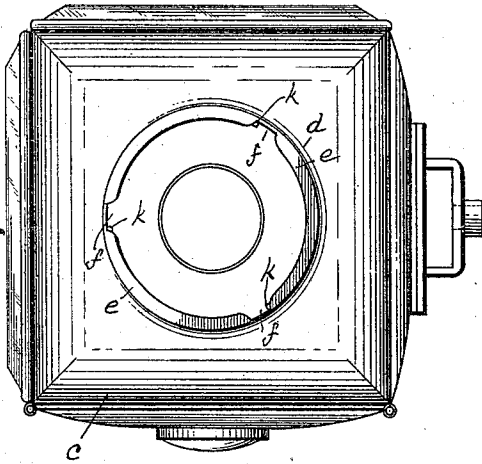


Fig. 2.

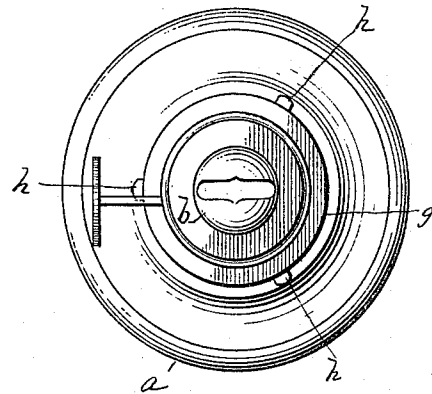


Fig. 3.

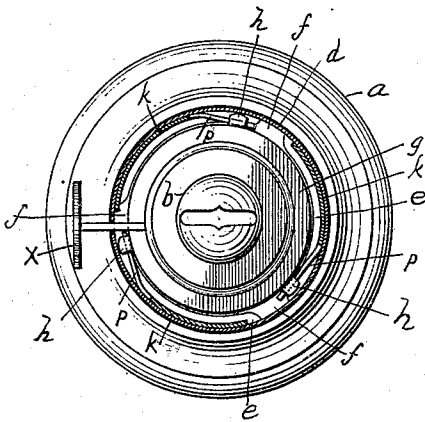


Fig. 4.

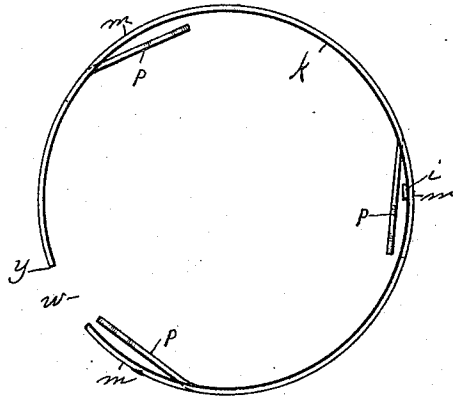


Fig. 5.

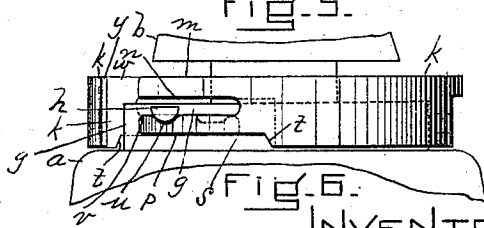


Fig. 6.

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UNITED STATES PATENT OFFICE.

IRVING H. ATWOOD, OF AMESBURY, MASSACHUSETTS.

VEHICLE-LAMP.

965,551.

Specification of Letters Patent.

Patented July 26, 1910.

Application filed April 27, 1910. Serial No. 557,937.

To all whom it may concern:

Be it known that I, IRVING H. ATWOOD, a citizen of the United States, residing at Amesbury, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Vehicle-Lamps, of which the following is a specification.

This invention relates to lamps constructed and adapted for use on automobiles, carriages and other vehicles; and it relates particularly to the joint or coupling which connects the oil-font which is provided with a suitable burner with the upper portion or casing which contains the reflector. Joints or couplings which connect the oil-font with the casing in lamps of this general character must of course be of such a nature that the oil-font can be detached and removed from the casing, and the present invention employs at that point a coupling constructed somewhat on the principle of a bayonet-joint, but which embodies certain new improvements in construction whereby the oil-font and casing are detachably or separably locked together in such a manner as to obviate all danger of rattling, loosening, or partial separation by reason of the jar of the vehicle, and in which the removal of the font and its application to the case are easily and quickly effected.

The nature of the invention is fully described below, and illustrated in the accompanying drawings, in which:—

Figure 1 is an elevation of a vehicle-lamp, more particularly an automobile-lamp, embodying my invention, the oil-font being separated from the casing, and a portion of the casing being broken out the better to illustrate the improved joint or coupling. Fig. 2 is a plan view of the under side of the casing or lantern portion. Fig. 3 is a plan of the top of the font and burner. Fig. 4 is a horizontal section taken through the joint or coupling with the parts assembled, that is, with the font and casing coupled and locked together. Fig. 5 is an enlarged plan of so much of the joint or coupling as is contained in the casing, removed. Fig. 6 is an enlarged detail in elevation of the joint or coupling removed from the casing, and in locked position on the font.

Similar letters of reference indicate corresponding parts.

a represents the font and *b* the burner which constitute the lower of the two portions of the lamp; and *c* is the case or lan-

tern constituting the upper portion of the lamp, both of said portions being constructed as usual except as regards the coupling or joint below described.

d represents a ring at the lower end of the casing provided with an turned flange or shoulder *e* formed with radial notches *f*. The ring-shaped portion *g* of the font is provided with outwardly extending studs *h* 65 preferably curved on their under side, corresponding in number and location to the number and location of the notches *f*. Supported in the ring *d* by the shoulder or ledge *e* is a circular metallic piece *k* which 70 lies against the inner surface of said ring *d*, and is secured to said surface by solder or other suitable means. This piece, constructed somewhat on the general principle of a bayonet-joint, is provided with a number of 75 longitudinal slots *n*, the number corresponding with the number of the studs *h* on the ring *g* and notches *f* in the flange *e*. Each of these comparatively narrow longitudinal slots is located between the upper narrow 80 portion *m* of the piece *k* and a substantially horizontal tongue *p* integral with and extending from the main portion of the piece *k*. In the case of all the tongues but one the tongues extend to a point at a sufficient 85 distance from the end of the slot *n* to allow of a connecting slot *r* between the outer end of the tongue *p* and the edge *q* of the piece, which is at right angles with the slot *n*, and extends to the lower edge of said piece *k*. 90 Under each tongue *p* is a horizontal recess *s* extending from the slot *r* to the beveled edge *t*. The upper edge of the tongue *p* is provided with a locking notch *u*, and is of suitable length to receive one of the studs *h*. 95 This tongue *p* being narrow, and the piece *k* of which it is an integral portion being of spring-metal, can be forced down by one of the studs *h* when in the process of coupling said stud passes between the upper edge *v* 100 of the outer end of the tongue and the lower edge of the portion *m*, there being ample room for the tongue to be pressed down by reason of the recess *s* immediately below it. Moreover each tongue is pressed inward sub- 105 stantially as illustrated in Figs. 4 and 5 for the purpose below described. At the outer end of one of the tongues *r* there is a complete space or passage *w* in place of that part of the portion *m* of the piece *k* which 110 is next the upper portion of the notch *f*, whereby the edge *y* extending for the entire

width of said piece *h* takes the place of the edge *g*. Thus the piece *h* is prevented from becoming a closed ring but is allowed to spread or spring normally outward. The tongues, the notches *s* below them, and the slots *n* are all alike, the only difference being, as above mentioned that next the outer end of one tongue there is a passage *w* extending entirely through the piece *h* (instead of the slot *r*) for the purpose of preventing the piece from being a closed ring in which there would necessarily be no possibility of expansion or spreading and also for the purpose of allowing passageway for the shank of the wick-raiser *x*.

When the font and case are to be coupled together, the font is placed with the shank of the wick-raiser *x* directly under the passage or space *w* (Figs. 1, 5 and 6) between the ends of the piece *h*, and raised from the position illustrated in Fig. 1 until the studs *h* move upward and pass through the notches *f* in the inturned flange or ledge *e*, and thence into the slots *r*, with the exception of one stud *h* which is next the opening or passageway *w* and which with the wick-raiser rises into said passageway at the same time that the other studs pass into the slots *r*, said passageway *w* and slots *r* registering with said notches *f*. When the upper ends of the slots *r* are reached the font *a* is rotated, causing the studs *h* to enter the slots *n* and press down the outer ends of the tongues *p* as said studs pass over the edge *v*. As soon as the studs reach the recesses or notches *u* the tongues spring upward and the font and case are securely coupled together. Reverse rotation disengages the parts and enables the font to be removed from the case.

Preferably I provide a stop *i* which extends down from the piece *h* on its inner side in front of one of the slots *n* between the notch *u* and the closed end of said slot, for the purpose of limiting the rotation of the font when the font and case are coupled together. See Figs. 1 and 5.

As the tongues *p* are bent inward into the position illustrated in Figs. 4 and 5 their inner surfaces next their ends bear against the outer surface of the ring *g* and effectually prevent any rotative or other movement of the font with relation to the case, and hence in connection with the locking notches *u* the danger of rattling, loosening or partial separation of the casing and font is entirely obviated and the two parts of the lamp are firmly and safely united.

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

1. In a lamp of the character described, a curved or C-shaped piece adapted to be supported horizontally in the lower portion of the casing or lantern of the lamp, said

piece being provided with longitudinal slots and with slots connecting one end of said longitudinal slots with the lower edge of the piece and further provided with recesses extending from the slots connecting with the lower edge of the piece under the longitudinal slots, whereby substantially longitudinal tongues are formed integral with the piece and adapted to be pressed downward into said recess and to spring upward therefrom; and a font provided with studs adapted to be moved into the slots over the tongues, for the purpose set forth.

2. In a lamp of the character described, a curved or C-shaped piece adapted to be supported horizontally in the lower portion of the casing or lantern of the lamp, said piece being provided with longitudinal slots and with slots connecting one end of said longitudinal slots with the lower edge of the piece and further provided with recesses extending from the slots connecting with the lower edge of the piece under the longitudinal slots, whereby substantially longitudinal tongues are formed integral with the piece and adapted to be pressed downward into said recess and to spring upward therefrom, the upper edge of each tongue being provided with a locking notch; and a font provided with studs adapted to be moved into the slots over the tongues, for the purpose set forth.

3. In a lamp of the character described, a curved or C-shaped piece adapted to be supported horizontally in the lower portion of the casing or lantern of the lamp, said piece being provided with longitudinal slots and with slots connecting one end of said longitudinal slots with the lower edge of the piece and further provided with recesses extending from the slots connecting with the lower edge of the piece under the longitudinal slots; tongues integral with said piece and extending between said longitudinal slots and said recesses and bent inward from the inner line of the circle of which said C-shaped piece constitutes an arc; a font provided with a circular portion adapted to extend into the said curved or C-shaped piece; and studs on said circular portion adapted to extend into the slots over the tongues whereby when the font and casing or lantern are locked together the tongues bear against the outer surface of the font and prevent rattling or relative movement of the font and casing at the joint.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IRVING H. ATWOOD.

Witnesses:

GRACE F. ATWOOD,
JOHN F. DAVIES.