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RETRACTIBLE COVER FOR VEHICLE HEAD LAMPS

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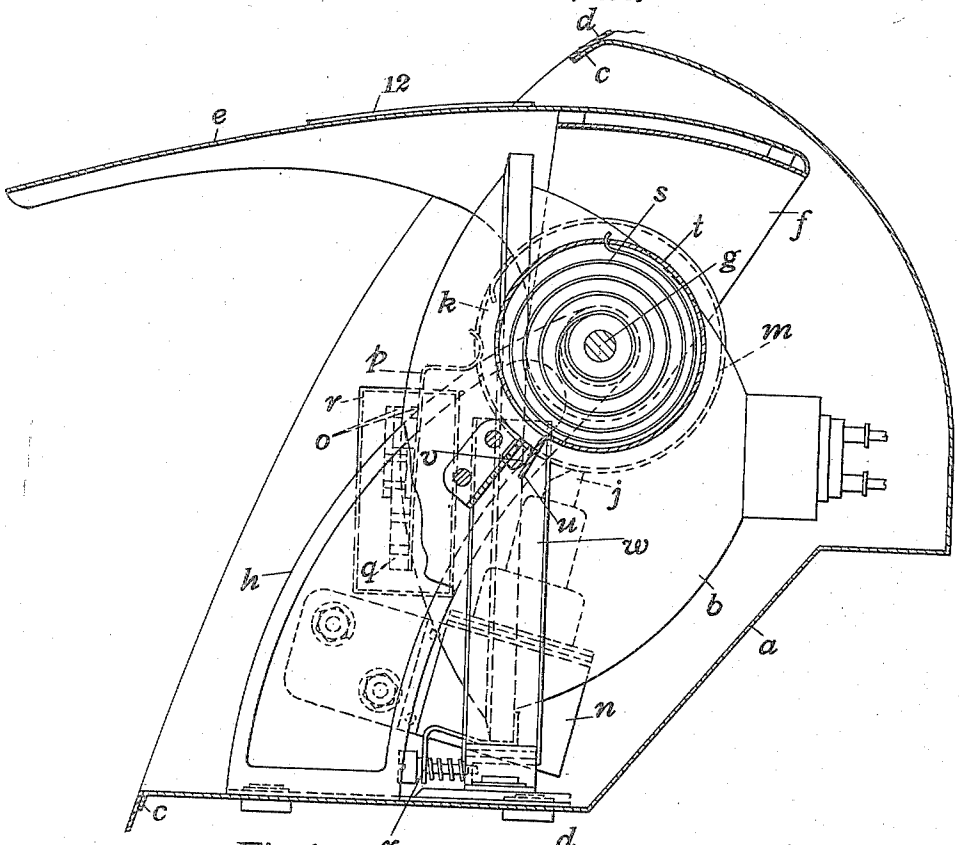


Fig.1

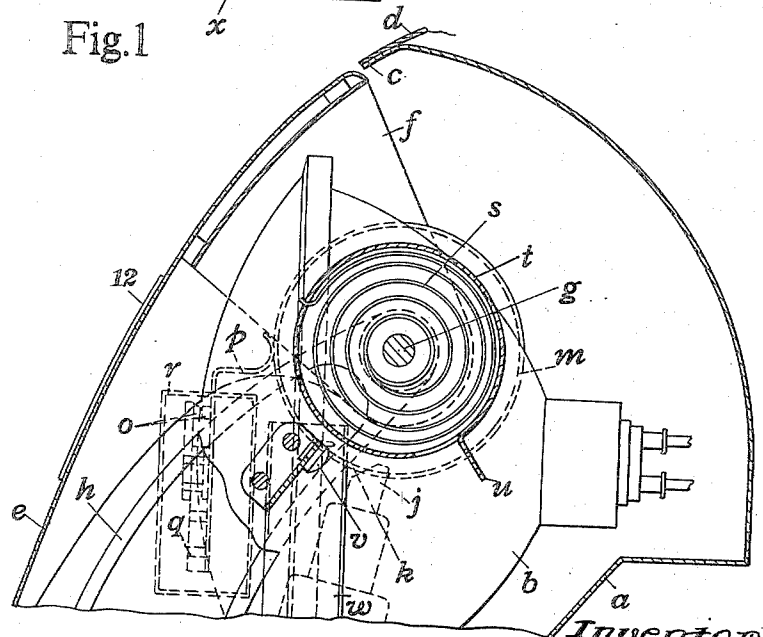


Fig.2

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RETRACTABLE COVER FOR VEHICLE HEAD LAMPS

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1 Claim. (Cl. 240—7.1)

1

This invention relates to vehicle head lamp mountings, and has for its object to provide an improved arrangement which conforms with the design of the vehicle body and minimises wind resistance.

In the accompanying sheets of explanatory drawings:

Figure 1 is a sectional side elevation of a head lamp mounting embodying the invention and showing the front cover in its open position.

Figure 2 is a fragmentary view similar to Figure 1 but showing the front cover in its closed position.

In carrying the invention into effect as shown, I employ a sheet metal or other housing *a* adapted to contain a head lamp *b* of any suitable form. The housing *a* has an open front surrounded by a narrow flange or flanges *c* whereby the housing can be welded or otherwise secured to, and behind an opening in, a front mud wing *d* or other convenient part of the vehicle body.

Within the housing *a* is mounted a sheet metal or other cover *e* for closing the open front of the housing. The cover is secured to or formed in part by a bridge piece *f* which is pivotally supported on a horizontal axis by fixed trunnions as *g* on the upper ends of a pair of brackets *h* at opposite sides of the housing, the lower ends of the brackets being adjustably or otherwise secured to the base of the housing. The cover *e* is movable about its pivot axis between the closed position shown in Figure 2 and the open position shown in Figure 1. When in its open position the cover *e* is substantially horizontal and serves to intercept upward light rays from the lamp *b*, thereby assisting in preventing dazzle. Moreover, the cover *e* is shaped so that when in its closed position it conforms with the contour of the mud wing *d* or other part of the vehicle body, and thereby minimises wind resistance.

For retaining the cover *e* in its closed position, I employ a catch *j* adapted to enter an opening *k* in the periphery of a flanged disc *m* secured to one side of the bridge piece *f*, the axis of this disc being coincident with the pivot axis of the cover. The catch *j* is movable to its operative position by any convenient loading spring (not shown), and is retractible against the action of this spring by an electromagnet *n*, the catch and the electromagnet being made as a unitary structure which is adjustably or otherwise secured to the adjacent bracket *h*. The circuit containing the winding of the electromagnet *n* is preferably connected to the circuit containing the head lamp *b* so that when the latter is brought into use the catch *j* is

2

retracted. The circuit of the electromagnet *n* may also contain a pair of complementary contacts *o* which are closed by a resilient arm *p* when the cover *e* is in its closed position, but which are opened by the arm when the cover is in its open position, the arm serving to carry one of the contacts. At one end the arm *p* is secured to a fixed anchorage *q* in the housing *a*, and at the other end is adapted to bear against the periphery of the flanged disc *m*, the arrangement being such that when the cover *e* is in its closed position the arm serves under the pressure exerted on it by the periphery of the disc to close the contacts *o*, but when the cover is in its open position the opening *k* in the disc periphery allows the arm to open the contacts. Preferably the contacts *o* are contained in a protective casing *r* within the housing *a*.

For moving the cover *e* to its open position when the catch *j* is retracted, I employ a spiral spring *s* enclosed by another flanged disc *t* which is coaxial with, but is secured to the side of the bridge piece *f* remote from, the first mentioned disc *m*, the spiral spring being anchored at one end to the periphery of the associated flanged disc and at the other end to the adjacent fixed trunnion *g*. When the catch *j* is retracted the cover *e* is automatically moved by the spiral spring *s* to its open position, this position being determined by contact of a peripheral projection *u* on the flanged disc *t* with a rubber or other resilient stop *v* adjustably or otherwise secured to the housing *a*. Return movement of the cover *e* to its closed position is effected by hand.

The head lamp *b* is pivotally supported at diametrically opposite positions by a cradle *w* which is adjustably or otherwise secured to the base of the housing *a*, and which carries a resilient and adjustable clip or the like *x* whereby the head lamp can be held against pivotal movement in the cradle.

The cover *e* may be formed with a small aperture which may be closed by transparent or translucent material *12* to provide the "parking" light.

By this invention I am able to mount vehicle head lamps in unobstructive positions without interfering with the smooth curves of the vehicle body.

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

A vehicle head lamp mounting comprising the combination of a lamp housing adapted to be accommodated in the vehicle body, a pivotally supported cover adapted when in its closed posi-

tion to close the front of said housing and conform with the shape of the vehicle body, a flanged disc arranged coaxially with the pivot axis of and attached to said cover at one side thereof, a spiral spring enclosed by said flanged disc and having its ends respectively anchored to said disc and housing so that said spring serves to move said cover to its open position, a flanged member attached to said cover at the side remote from said flanged disc, and an electromagnetically retractible catch arranged to co-operate with said flanged member for retaining said cover in its closed position, said catch being operable by the occupant of the vehicle.

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