

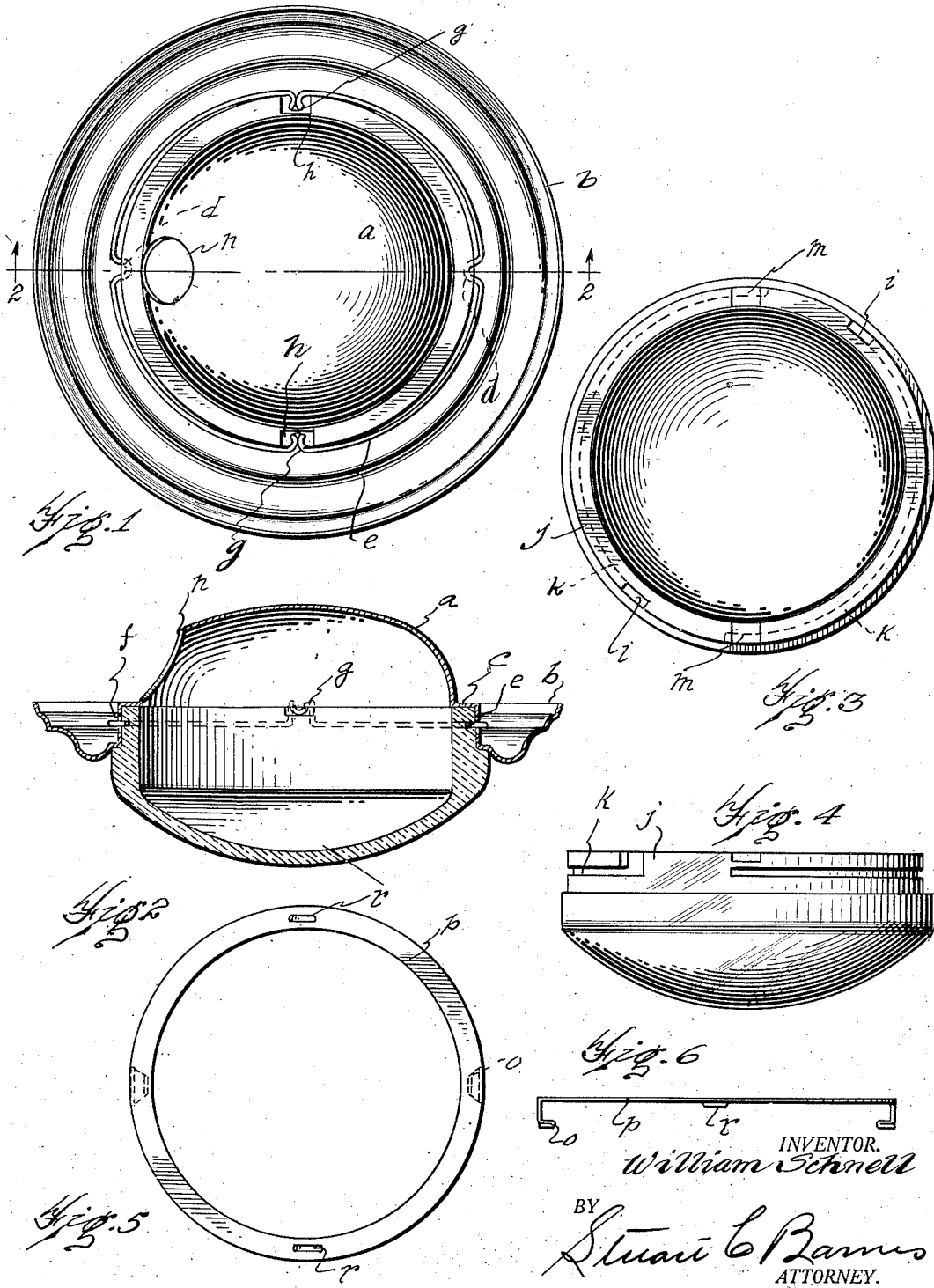
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W. SCHNELL

DOME LIGHT

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INVENTOR.

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BY

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UNITED STATES PATENT OFFICE.

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DOME LIGHT.

Application filed September 17, 1923. Serial No. 663,018.

To all whom it may concern:

Be it known that WILLIAM SCHNELL, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, has invented certain new and useful Improvements in Dome Lights, of which the following is a specification.

This invention relates to dome lights and has for its object a dome light in which the metal parts are so designed that they may be stamped out of a single piece.

In the common dome light now used in closed body construction for automobiles, it is usual to use three pieces. There is the cup-like reflector portion which is adapted to receive the electric light socket and hold the light bulb. The lens is ordinarily carried in a lens frame made of two separate pieces which are ordinarily soldered together after the lens has been inserted. This makes a three-piece metal structure to form the reflector and lens frame.

It is the object of my invention to make a relatively cheap construction which will be more in keeping with the cost of the various parts of the cheaper grade of automobiles. To this end, I have designed a single sheet which acts both as a reflector and the lens frame.

Referring to the drawings:

Fig. 1 is a plan view of the shell, that is, an elevation of the back of the shell.

Fig. 2 is a cross section taken on the line 2-2 of Fig. 1.

Fig. 3 is a rear elevation of the lens.

Fig. 4 is a side elevation of the lens.

Fig. 5 is a detailed view of a modified form of locking spring.

Fig. 6 is a side elevation of the same member.

A piece of sheet metal is stamped to the shape shown in Figs. 1 and 2, that is, it is cupped on its inside to form a reflector or base *a* of the light, while the edge is turned over to form the lens frame *b*. An offset or shoulder *c* is formed between the base portion and the lens frame portion and below this rests the wire spring *e*. This wire spring has, at diametrically opposed points, a pair of offset loops *d* adapted to protrude through the punched out openings *f* of the lens frame. At points 90 degrees removed from these loops *d* are provided loops *g* which protrude down through openings *h* in the shoulder *a*.

The dome lens is shown in Figs. 3 and 4. It is provided with a lens portion and is surmounted by a ring portion *j* provided with bayonet recesses *k*. The openings of these bayonet recesses are located at the 180 degree points on the ring and are designated *i*. There is also set in from the edge of the ring portion, a pair of notches *m* diametrically opposite but less than 90 degrees removed from the openings *i* of the bayonet recesses for a purpose later to be described. These lenses are moulded, but obviously the ring portion together with the recesses and the notches may be readily moulded into the lens without much more expense or trouble.

The shell is secured to the ceiling of the car. It is provided with an opening *n* through which the light socket protrudes. The lens may be easily secured to the shell by simply inserting it and causing the openings *i* of the bayonet recesses to register with the offset loops *d* of the spring. The lens may then be turned until the notches *m* register with the locking loops *g* whereupon the locking loops will snap into the notches *m*. These locking loops or springs perform a double function. They serve to prevent the turning of the lens so that it will again come in position where it can disengage itself from the shell and further to engage against the bottom of the notches and thrust the lens outwardly with respect to the shell so as to prevent vibration and rattling.

In Figs. 5 and 6, a slightly different form of spring is shown. This is a flat spring *p* adapted to rest on the shoulder *c* of the shell. It is provided with turned down lips *o* which are adapted to protrude through the openings *f* in the lens frame, and is provided with spring points *r* adapted to protrude through the openings *h* in the shoulder *c*.

What I claim is:

1. In a dome light, the combination of a shell forming the reflector and lens frame in a single piece, a spring member protruding through said shell to form a part of a bayonet lock, and a lens provided with a bayonet recess in the glass for engaging said spring members.

2. In a dome light, the combination of a stamped metal shell forming a cupped reflector portion and a turned back flange or lens frame all of a single piece, a spring member protruding through the shell to form part of a bayonet lock, and a lens pro-

vided with an integral rear portion having a bayonet recess adapted to interlock with the spring to form a detachable engagement with the shell.

5 3. In a dome light, the combination of a stamping forming in a single shell a reflector in the form of a cupped member and a lens frame in the form of a turned back flange, a spring member engaging about the
10 back of the shell and provided with protruding portions to pass through the shell, and a lens provided with an integral ring portion having a bayonet recess for engaging the spring portions to form a detachable
15 interlock.

4. In a dome light, the combination of a stamping forming a cup-like reflector and a turned back flange forming the lens frame, a spring member secured to the back of the
20 shell and having two portions protruding through the shell, one to form part of a bayonet lock and the other to form an anti-rattling lock, and a lens having a ring portion having a bayonet recess and also a
25 notch, the bayonet recess adapted to interengage with the protruding portion of the spring and the notch with the other portion of the protruding spring whereby a bayonet lock is afforded and also an inter-
30 lock to prevent the disengagement of the bayonet lock portions.

5. In a dome light, the combination of a

shell provided with a lens frame, a spring ring having locking portions projecting through the lens frame, and a lens of glass
35 provided with an integral glass neck portion having a locking groove formed therein arranged to detachably engage with the projecting portions of the spring ring to detachably lock the lens to the lens frame. 40

6. In a dome light, the combination of a
40 shell forming a reflector and lens frame, a bayonet lock member secured in the shell, a second spring catch member secured in the shell, and a moulded glass lens provided
45 with a moulded bayonet lock member arranged to engage with the bayonet lock member of the shell and provided with a notch arranged to receive the spring catch.

7. In a dome light, the combination of a
50 shell forming a reflector and lens frame, a bayonet catch supported on the shell, a second spring catch supported on the shell, and a moulded glass lens provided with a neck
55 portion having a bayonet slot in its side, and a notch in its end, whereby the two bayonet lock members may be engaged and turned whereupon the spring catch snaps into the notch to lock the members in engagement. 60

In testimony whereof he has affixed his signature.

WILLIAM SCHNELL.