E. N. CHERRY

COMBINED HEADLIGHT GUARD AND DIMMER.

APPLICATION FILED AUG. 18, 1915.

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Fig. 1.

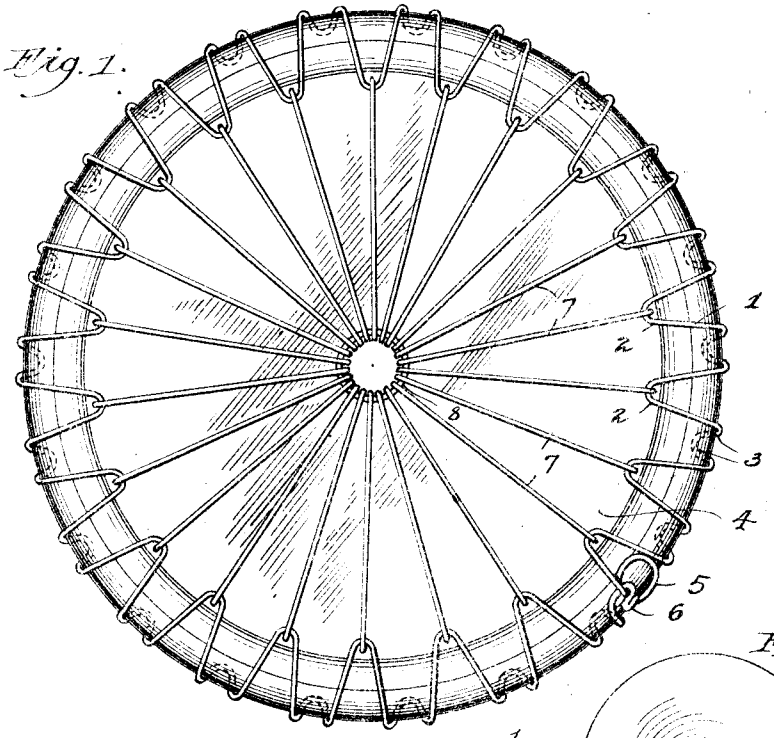


Fig. 3.

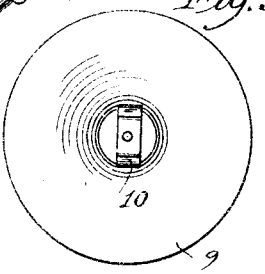
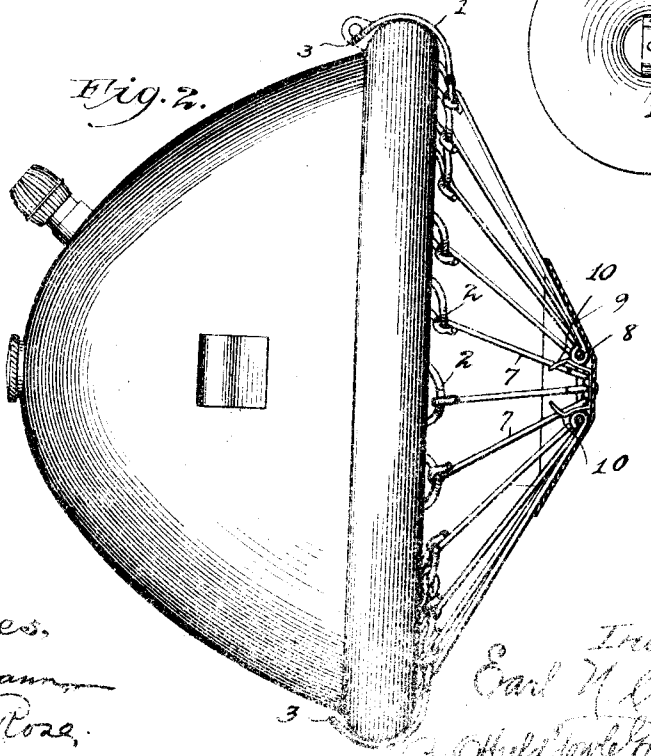


Fig. 2.



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UNITED STATES PATENT OFFICE.

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COMBINED HEADLIGHT GUARD AND DIMMER.

1,187,968. Specification of Letters Patent. Patented June 20, 1916.

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To all whom it may concern:

Be it known that I, EARL N. CHERRY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Headlight Guard and Dimmer, of which the following is a specification.

This invention relates to improvements in an improved headlight guard and dimmer and it has for its salient objects, to provide a construction which will form an effective guard or protection for the crystal or glass of a headlight lamp; which is of such construction that it may be expanded or contracted to fit various sizes of headlights; which is provided with a complementary dimmer which may be used coöperatively with the guard, or omitted, at pleasure; to provide a construction which, except for the dimmer disk, is made wholly of wire, and is therefore very economical in cost of material and construction; to provide a device which is at once strong and durable and presents an ornamental and finished appearance; and, in general, it is an object of the invention to provide an improved device of the character referred to.

The invention will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a front or face elevation of an ordinary headlight equipped with my improved guard, the dimmer being left off; Fig. 2 is a side elevation of the headlight with the guard applied thereto and shown in axial section; the dimmer being in this instance attached and also shown in axial section; Fig. 3 is an inside face elevation of the dimmer disk.

In making the preferred embodiment of my invention, that shown in the drawings, I provide a peripheral elastic guard member by forming suitable spring steel, stiff or resilient wire, into a continuous length of oppositely extending or zigzag loops, as 2, 3, lying in the same plane, and I then bend or shape the skeleton ribbon-like structure so formed into transversely convex form, so that it will fit over, clasp, and embrace the edge of an automobile or other headlight. The convex cross-sectional form of the marginal frame 1, is shown clearly in sectional view of Fig. 2. I prefer to make the outwardly pointing loops 2 of such length that they will project some distance inwardly beyond the exposed edge of the glazing or crystal 4 of the headlight, while the outwardly and rearwardly projecting loops 3 are made of such length as to extend well behind the rim of the headlight, as seen clearly in Fig. 2. Each end of the marginal frame is provided with one member of a clasp, whereby the two ends may be hooked or clasped together after the guard has been applied to the headlight. Preferably, the two members 5 and 6 of the clasp are made as integral continuations of the wire which forms the main marginal frame. To complete the guard proper, I provide a series of radial guard wires 7, extending from the inner ends of the loops 2 to a central support or ring 8 located at the center of the guard as a whole. Preferably the guard wires 7 take the form of single wire links provided at their ends with loops which are looped through the ends of the loops 2 and around the ring 8, respectively. At their outer ends, the guard wires 7 are preferably soldered or welded to the corresponding loops of the border frame, but they are simply looped loosely around the ring 8 at their inner ends so as to pivot on the latter.

The dimmer element 9, as shown in the present instance, is a metal or other suitable sheet material disk, made outwardly convex and interiorly concaved to fit upon the central part of the guard. Attached to the interior of the disk at its center is a two-arm strap spring 10, which is of such conformation that it may be forced through the circular space inside the inner ends of the guard wires 7, and when thus entered, the arms expand outwardly and hold the disk reliably in position, though ready to be easily moved by applying sufficient force to separate the parts. The disk 9 may be either opaque or translucent, as preferred. If it is to be translucent, it may be made of celluloid instead of metal.

The application of the guard to a headlight is obvious and requires no description. By reason of the fact that the oppositely disposed or zigzag loops of the border frame are formed of spring wire, it is obvious that the frame may be expanded to fit larger headlights than those of the size which the border frame normally assumes. If made of hard drawn wire, the border frame can

be closed up so as to fit a headlight smaller than the size which it normally assumes. These expansions or contractions of the border frame to fit different sized headlights are accompanied by a corresponding decrease or increase of the conical depth of the part of the guard formed by the wires 7 and central ring. In other words, the larger the border frame be expanded, the flatter will be the convexity of the outline formed by the radial guards, and vice versa.

It will be obvious from the foregoing that I accomplish the several objects of the invention hereinbefore stated. It will also be obvious that the details of construction may be modified to some extent without departing from the invention, especially as set forth in the broader of the appended claims. I do not, therefore, wish to be understood as being limited to the precise details of form and construction shown.

I claim as my invention:

1. A guard for headlights and analogous devices, comprising an elastic border frame of, or incorporating, spring metal formed and adapted to be clasped upon the periphery of a headlight or the like, and an open frame-work connected with said border frame and overlying the face of the headlight inside said border frame.

2. A guard for headlights and analogous devices, comprising a skeleton wire border frame adapted to fit upon the periphery of a headlight or the like, and a series of guard wires connected with and extending from the border frame radially inwardly to a connecting element, said face guard wires having articulated connection with said connecting element so as to permit expansion and contraction of the guard as a whole.

3. A guard for headlights and analogous devices, comprising an elastic skeleton border frame formed of tortuously-bent spring wire and shaped to fit and clasp upon the periphery of a headlight or the like, and a series of radially-disposed wire links connecting said border frame to a union element located at or near the center of the guard as a whole and having articulated connection with said union element.

4. A guard for headlights and analogous devices, comprising an elastic skeleton border frame of spring wire bent tortuously to form alternate, oppositely-disposed loops, and bent along its longitudinal axis into concavo-convex form in cross-section, means for connecting the ends of the border frame into a continuous ring, a series of radial guard wires connected with the inturned loops of the border frame, and a circular union element with which the inner ends of said radial guard wires have articulated connection.

5. As a new article of manufacture, a skeleton wire guard adapted to embrace and fit upon the periphery of a headlight and to overlie the face of the latter, and a dimmer element mounted upon the central portion of said guard and covering less than the face area of the latter.

6. As a new article of manufacture, a skeleton wire guard adapted to embrace and fit upon the periphery of a headlight and to overlie the face of the latter, and a dimmer element detachably mounted upon said guard.

7. A guard for lamps and analogous devices, comprising a skeleton wire border frame adapted to fit upon the periphery of a headlight or the like, a series of guard wires connected with and extending from the border frame radially inwardly to a connecting element, said face guard wires having articulated connection with said connecting element so as to permit expansion and contraction of the guard as a whole, and a dimmer disk detachably mounted upon the face portion of said guard.

8. A headlight guard, comprising an expansible wire frame adapted to be secured to the periphery of the headlight, guard wires extending from the frame to a connecting portion in the center of the headlight lens, and a dimmer secured to the face of the guard.

9. A guard for headlights, comprising an expansible wire frame, means for securing said frame in its stretched position to the periphery of the headlight, a central portion, connecting wires between said central portion and the frame and a disk secured to the central portion and extending toward the periphery.

10. As a new article of manufacture, an expansible and contractible skeleton wire guard adapted to fit upon the periphery of the headlight to protect the periphery and face thereof and a dimmer disk detachably mounted upon the face portion of the guard.

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