362-110 SR
XR 1,080,795
D-41

E. S. WARD.

SEARCH LIGHT ATTACHMENT FOR SHOTGUNS AND THE LIKE.

APPLICATION FILED MAR. 6, 1913.

1,080,795. Patented Dec. 9, 1913.

Fig. 1.

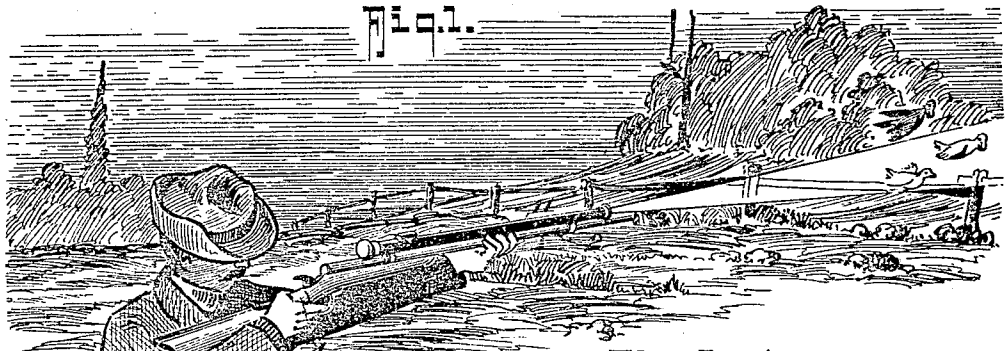


Fig. 2.

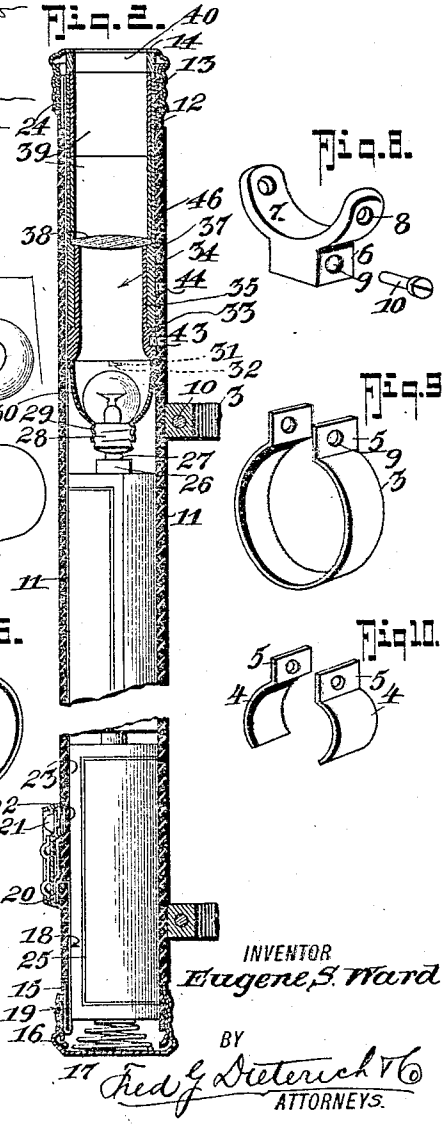


Fig. 3.

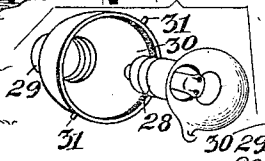


Fig. 4.

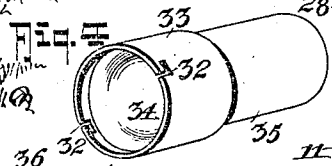


Fig. 5.

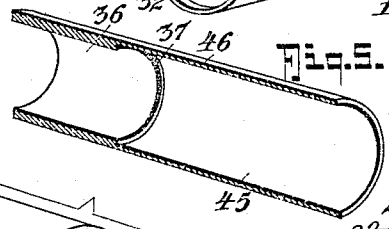


Fig. 6.

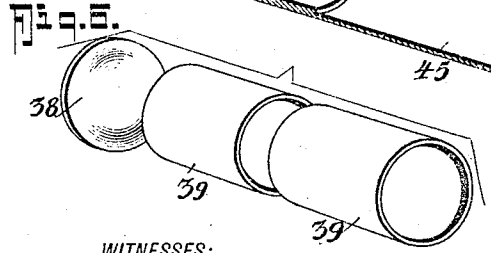


Fig. 7.

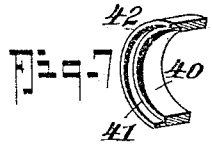


Fig. 8.

Fig. 9.

Fig. 10.

WITNESSES:

John G. Schrott.

N. M. Grunwell.

INVENTOR

Eugene S. Ward

BY

Fred G. Dieterich & Co.

ATTORNEYS.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

6.41

UNITED STATES PATENT OFFICE.

EUGENE S. WARD, OF PORTLAND, OREGON.

SEARCH-LIGHT ATTACHMENT FOR SHOTGUNS AND THE LIKE.

1,080,795. Specification of Letters Patent. Patented Dec. 9, 1913.

Application filed March 6, 1913. Serial No. 752,324.

To all whom it may concern:

Be it known that I, EUGENE S. WARD, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Search-Light Attachments for Shotguns and the like, of which the following is a specification.

My invention is an improvement for attachment to shot guns and other firearms of a similar nature, whereby night hunting is greatly facilitated. In using shot guns of the ordinary construction in the dark, great difficulty is encountered in properly locating the position of the quarry and consequently considerable difficulty is had in properly sighting the gun.

My invention, therefore, has for its object to provide a device that can be readily and conveniently attached to the gun barrel, the device being wholly self-contained and capable of being manufactured as a unit.

Generally, the invention provides a tube or casing, the ends of which have caps and within which casing the batteries are located; within the tube or casing is also located the lamp and its reflector, the reflector being detachably connected to the fixed section of the lens carrier, while the lens is removably mounted in the removable or adjustable section of the lens carrier, whereby the focus may be adjusted at will. The casing tube has provisions for removably and adjustably retaining the lens carrier in place.

More subordinately the invention also includes those novel details of construction, combination and arrangement of parts all of which will be first fully described and then be specifically pointed out in the appended claims, reference being had to the accompanying drawing in which:—

Figure 1 is a perspective view illustrating the invention in use. Fig. 2 is a vertical longitudinal section of the device, parts being broken away. Fig. 3 is a detail perspective view of the reflector, lamp socket and the bulb detached. Fig. 4 is a detail perspective view of the relatively fixed lens carrier section. Fig. 5 is a perspective longitudinal section of the movable or adjustable lens carrying section. Fig. 6 is a detail perspective view of the lens and the holding sleeves or tube sections. Fig. 7 is a detail perspective view of the outer holding ring of the lens carrier. Fig. 8 is a detail perspective view of one of the saddle blocks. Fig. 9 is a detail perspective view of the front barrel clip which coöperates with the front saddle member to hold the attachment in place. Fig. 10 is a detail perspective view of the rear barrel clip which also coöperates with one of the saddle members to hold the attachment on the gun.

In the drawing, 1 represents the stock, and 2 indicates the barrel of the gun.

3 is a band clip having ears 5 to encircle the barrel 2 of the gun and coöperate with the lug 6, of the saddle member 7, in retaining the attachment 11 on the gun. The block 6 and the ears 5 are apertured, as at 9, to receive the securing bolt or screw 10.

4 is the rear saddle clip which is made in two sections to partly encircle the barrel above the stock 1, and it too is provided with the ears 5 to coöperate with the lugs 6 of the rear saddle member 7.

11 is the tube or casing of the attachment which is preferably formed of insulating material such as fiber, hard rubber or other suitable substance, and at each end it is provided with a metallic ring 12—15, which is relatively permanently secured to the casing 11, the rings 12 and 15 being formed with threads to coöperate with the caps 13 and 16 respectively. The rear cap 16 is a closure cap and it carries a coil spring 17 to press the batteries 25 in contact with each other and the terminal 26 of the forward battery in contact with the contact 27 of the lamp or bulb.

18 is a metallic strip countersunk into the tube or casing 11 and having one end 19 brought into electric contact with the ring or ferrule 15, while its other end 20 is connected to one terminal 21 of a circuit closing switch, the other terminal 22 being formed by the end of a second metallic strip 23 which extends within the casing 11 to its forward end where it is brought into electrical contact at 24 with the ring 12.

The lamp bulb has the usual threaded base 28 which screws into the socket portion 29 of the reflector 30, the reflector 30 being supported on the head 33 of the relatively

fixed lens carrier section, in a quick detachable manner, through the medium of a bayonet joint 31—32. The relatively fixed lens carrier section which also supports the reflector 30 has a light passage 34 and a cylindrical extension 35 of a lesser diameter than the head 33 so as to fit within the bore 36 of the movable lens carrier section 46. The movable lens carrier section (see Fig. 5) has a shoulder 37 against which the lens 38 rests, the lens being held against the shoulder by tubes or sleeves 39 that fit loosely into the front bore 45 of the movable lens carrier 46, (see Fig. 2 of the drawing). In order to hold the sleeves 39 in place, and consequently retain the lens 38 against the shoulder 37, a ring 40 is provided, which is counterbored at 41 to fit onto the front end of the outer sleeve 39 (see Fig. 2), the edge 42 (see Fig. 7) of the ring 40 resting on the outer edge of the movable lens carrier 46 and being held in place when the parts are assembled by the flange 14 of the screw cap 13.

A set screw 43 is provided to hold the relatively fixed lens carrier 33 in place, while a set screw 44 is provided for holding the movable section 46 in its adjusted positions. By moving the movable section 46 along its longitudinal axis to slide the bored end 36 more or less onto the end 35 of the fixed section 33, the lens 38 can be located a greater or less distance from the lamp filament so as to adjust the focus, and when the section 46 has been adjusted, the set screw 44 is tightened down and the cap 13 screwed into place, it being understood that the cap 13 is of sufficient length to allow of the necessary range of adjustment of the lens 38.

From the foregoing, it will be observed that when the contacts 21—22 are brought into engagement, the electric circuit through the bulb will be closed from the battery through the filament via contact 27, returning via base 28 and metallic parts 30—33—12, strip 23, contacts 22—21, strip 18, ring 15, cap 16, and spring 17 to the other or outer terminal of the battery.

The use of the device will be clear by reference to Fig. 1 and its operation, it is believed, will be well understood by those skilled in the art, so a detailed description of the same is thought to be unnecessary.

From the foregoing description taken in connection with the accompanying drawing, it is thought the complete construction, operation and advantages of the invention will be apparent to those skilled in the art to which the invention relates.

What I claim is:—

1. An attachment for shot guns, including a tubular case, a set of batteries mounted in said case, a relatively fixed lens carrier held in said case, a lamp base and reflector removably interlocked with and supported by said relatively fixed lens carrier, a relatively movable lens carrier telescopically mounted on said relatively fixed lens carrier, a lens mounted in said relatively movable lens carrier, means for holding said relatively fixed lens carrier in position in the casing, means for holding said relatively movable lens carrier in its adjusted position in the casing, and means for retaining the lens in said lens carrier, said means including a cap on the case and coöperating connections between said cap and said lens for holding the same immovable in the adjustable lens carrier, together with a lamp bulb mounted in the lamp base, and means for completing the lamp circuit between the batteries and the bulb.

2. An attachment for shot guns which comprises a tubular case, a closure cap removably mounted on the rear end of said case, a set of batteries mounted in the case, a relatively fixed lens carrier immovably mounted within the case, a relatively movable lens carrier adjustably mounted within the case, a lamp bulb holder removably mounted on said fixed lens carrier, a bulb mounted in said holder and in electric contact with a battery terminal, said adjustable lens carrier having an internal shoulder, a lens held against said shoulder, retaining sleeves mounted in said adjustable lens carrier to engage said lens, a ring engaging the outer end of said adjustable lens carrier and the adjacent end of one of said sleeves to hold said sleeves in place, and a cap mounted on the corresponding end of the holder, and having a flange to engage said retaining ring to hold it in place, said last named cap having an aperture registering with the bore of said ring, means for completing the electric circuit between the batteries and the bulb, and means for mounting the attachment on a shot gun.

3. An attachment for shot guns, including a tubular case, a set of batteries mounted in said case, a lens and light carrier also mounted in said case and removable therefrom as a unit, the same comprising a relatively fixed member, a lamp base and reflector having a bayonet joint connection with said relatively fixed member, a lamp mounted in said base, said relatively fixed member having an external bore of two diameters to provide a shoulder, a relatively movable member having an internal bore of two diameters to provide an internal shoulder, said movable member being telescopically mounted on said relatively fixed member, a lens held in said movable member against the internal shoulder, sleeves loosely mounted in said movable member to engage said

lens and retain it against said shoulder, means for holding said relatively fixed member and said movable member in position in the case, and means carried by the case and coöperatively connected with said lens holding sleeve for holding the same from movement, together with circuit connections between said lamp bulb and said batteries, and means for securing the attachment on the barrel of the shot gun.

EUGENE S. WARD.

Witnesses:
FRED G. DIETERICH,
ALBERT E. DIETERICH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."