J. W. KNOBLOCK.

PORTABLE SEARCHLIGHT.

APPLICATION FILED FEB. 9, 1917.

1,309,140.

Patented July 8, 1919.

3 SHEETS—SHEET 1.

Fig. 1.

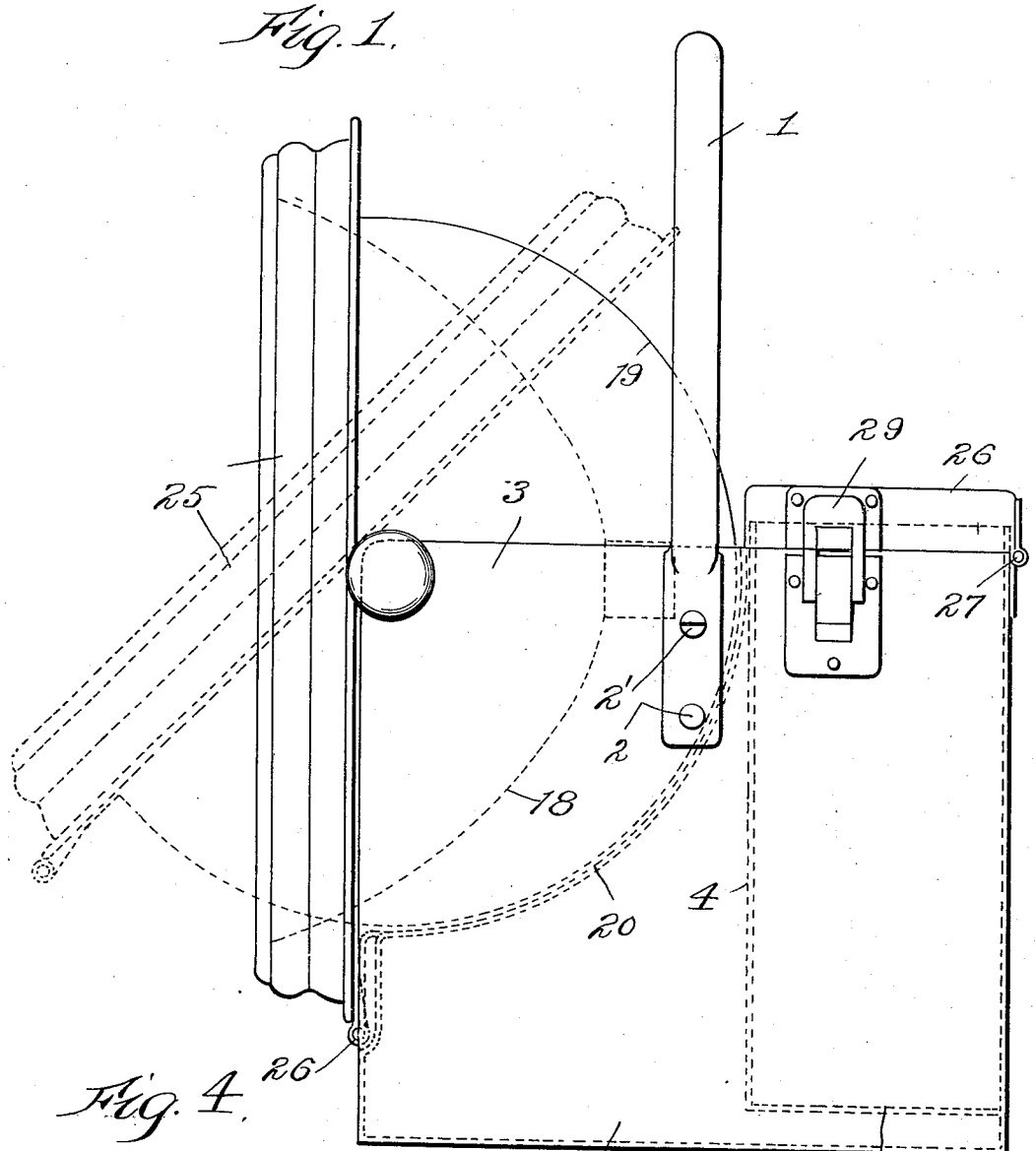
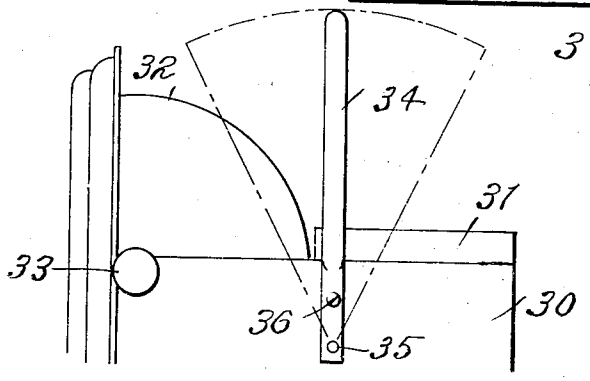


Fig. 4.



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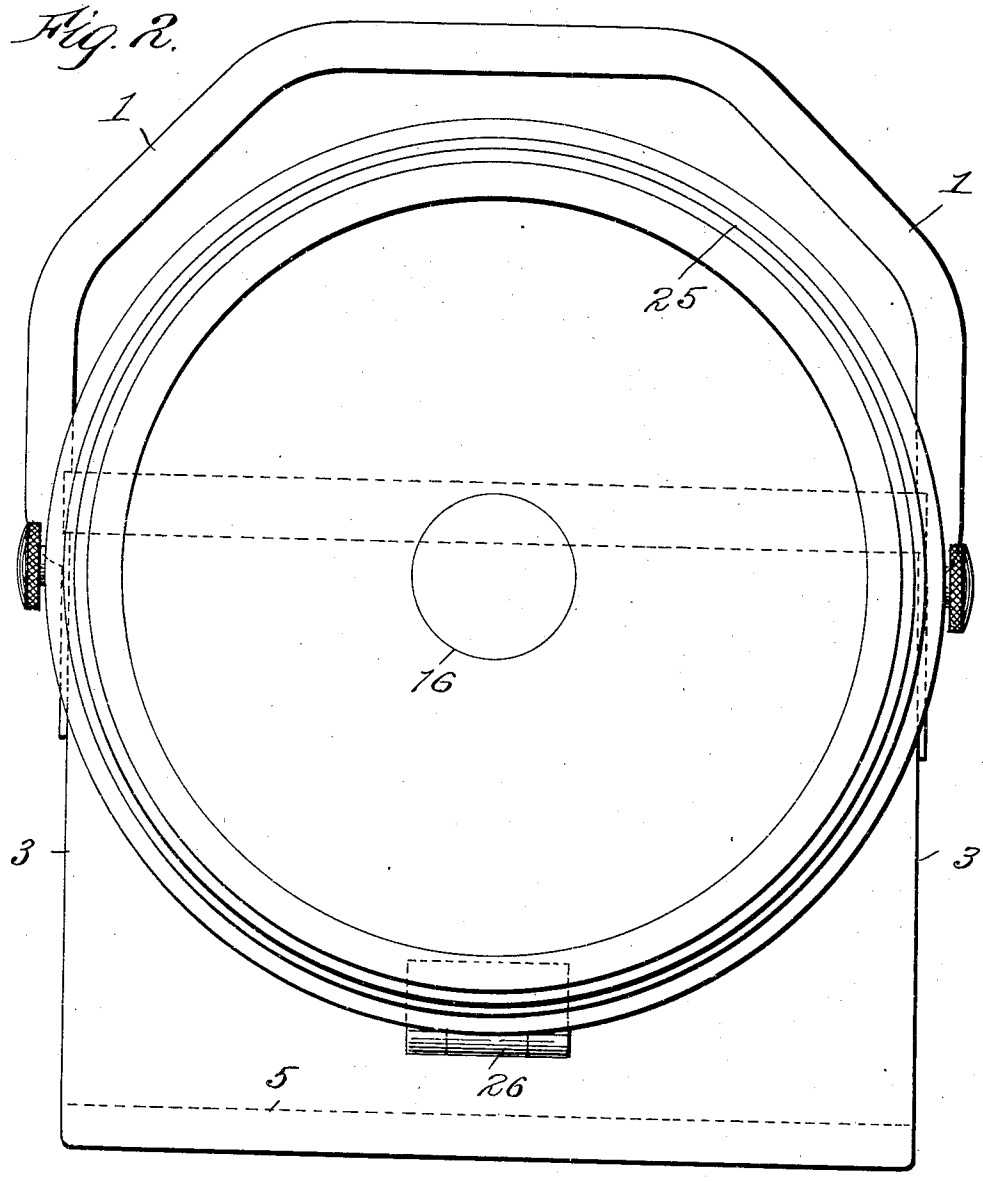
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3 SHEETS—SHEET 2.

Fig. 2.



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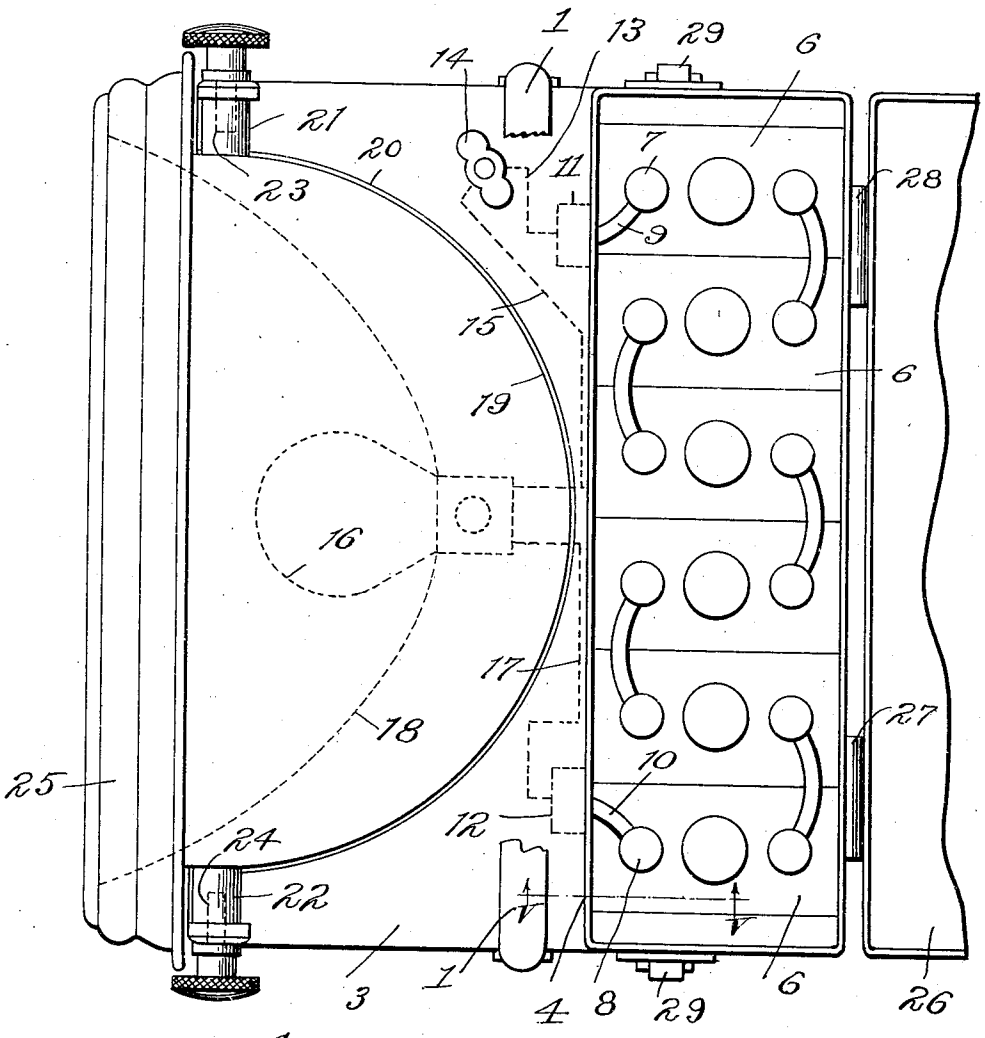
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3 SHEETS—SHEET 3.

Fig. 3.



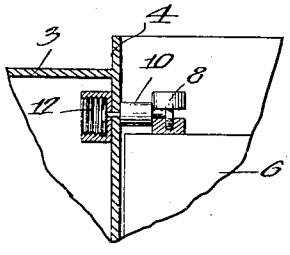


Fig. 5.

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UNITED STATES PATENT OFFICE.

JAMES W. KNOBLOCK, OF ELMIRA, NEW YORK, ASSIGNOR TO AMERICAN LA FRANCE FIRE ENGINE COMPANY, INC., OF ELMIRA, NEW YORK, A CORPORATION OF NEW YORK.

PORTABLE SEARCHLIGHT.

1,309,140. Specification of Letters Patent. Patented July 8, 1919.

Application filed February 9, 1917. Serial No. 147,603.

To all whom it may concern:

Be it known that I, JAMES W. KNOBLOCK, a citizen of the United States, and resident of Elmira, county of Chemung, and State of New York, have invented certain new and useful Improvements in Portable Searchlights, of which the following is a specification.

This invention relates to portable searchlights and has for its main object to provide an improved construction and arrangement of parts which will make it possible to construct a device of this character substantially water, smoke and dirt proof, thus rendering it peculiarly serviceable in some fields of service, such for example as around fires. Another object of my invention is to provide an improved construction which will be simple, durable, and efficient, the parts being compactly and conveniently arranged to be readily manipulated, while being carried about. Other and further objects will appear in the specification and be pointed out in the appended claims, reference being had to the accompanying drawings, in which:—

Figure 1 is a side elevation of the preferred embodiment of my invention;

Fig. 2 is a front elevation of the same;

Fig. 3 is a top plan view of the same showing the battery chamber open, the cover being partly broken away,

Fig. 4 is a fragmentary side elevation of a modification.

Fig. 5 is a detail section on the line V—V, Fig. 3, parts being broken away and parts shown in elevation.

Referring more particularly to the drawings, in one embodiment shown therein, a handle 1 is journaled on rivets 2 and secured by screws 2′ to a sheet metal case 3, said case being provided with a transverse partition for forming a battery chamber between it and the rear wall of the case 3. Said battery chamber is provided with a raised bottom 5 suitably disposed to retain a storage battery comprising connected units 6, the battery shown in Fig. 3 being a standard article of merchandise. The opposite poles 7 and 8 of the battery are provided with leads 9 and 10, which extend to terminal boxes 11, 12, shown in dotted lines in Fig. 3. Leading from the terminal box 11 is a wire 13 which connects with a switch, the handle 14 of said switch being shown in plan in Fig. 3. A wire 15 leads from said switch to one terminal of an incandescent filament contained in lamp 16. The other terminal of said filament is connected by a wire 17 to the terminal box 12. Lamp 16 is provided with a reflector 18 shown in dotted lines in Figs. 1 and 3, said reflector and lamp being within a housing 19, the outer wall of which is formed as a surface of revolution with respect to the axis about which the reflector swings in the manner to be presently pointed out. As shown in Figs. 1 and 3, the housing 19 is preferably formed with a part-spherical contour and in any position to which it may be adjusted, a portion of the outer wall thereof lies in close juxtaposition to a correspondingly formed wall 20 of the case 3. It will be seen therefore that the top and front walls of the case are cut out in such a way as to fit the spherical back of the projector, so that no matter at what elevation of projection the projector is set, the case will be approximately sealed and thus adapted to shed water, to exclude dirt and thus to protect the parts contained within the reflector and the case. Fastened to the spherical back of the projector are threaded bushings 21 and 22, which are coaxially arranged and which receive the trunnion screws 23 and 24 by means of which the reflector is trunnioned in case 3. The reflector is provided with a front door 25 which is hinged at 26 and retained in closed position by a fastening at the top (not shown). A cover 26 for the battery chamber is hinged at 27 and 28 to the upper edge of the rear wall of the case 3, suitable fastenings 29 being provided to retain the cover in closed position. Said cover 26 is adapted to hold the battery in place when in closed position, and is provided with a flange which depends around the upper edge of the battery chamber, thus making said battery chamber spray-proof or rain-proof. It will be seen by an inspection of Fig. 1, that the rotary axis of the reflector 18 is horizontal and arranged between the upper and lower horizontal planes of the battery chamber, and approximately at the same elevation as the terminal box 12. The front door 25 of the projector, provides an annular enlargement which comes into abutment with the lower front wall of the case 3, when the projector projects light straight ahead. By

an inspection of Fig. 3, it will be seen that the storage battery, as well as the reflector, extends substantially entirely across the case, one of these elements being entirely housed within said case, while the other of said elements has a large portion thereof housed within said case. The resulting construction is at once compact, water, weather and dirt-proof, readily manipulated, and durably constructed by reason of the simplicity and the fewness of the parts. In both embodiments of my invention, the arrangement of the terminal sockets 11 and 12 adjacent the poles 7 and 8 of the battery and in positions in which they do not obstruct the movement of said battery into and out of the battery chamber, is of importance.

Referring now to the embodiment shown in Fig. 4, it is desirable under some conditions, to use a battery which is relatively larger than the battery shown in the former embodiment. In Fig. 4, the battery chamber occupies somewhat more than one-half of the housing 30, the corresponding portion of said housing being protruded slightly above the forward end of housing 30 and surmounted by a cover 31. The reflector 32 swings about the axis of studs 33. A handle 34 is pivotally connected to housing 30 by means of coaxial rivets 35, it being necessary in this embodiment to swing the handle out of the way to permit the relatively large battery to be introduced and removed. In order to hold the handle rigid, a screw 36 is provided on each side, to hold the handle rigid in a plane substantially including the center of gravity of the searchlight.

I claim:—

1. A portable searchlight comprising a case, a projector journaled in said case, said projector being provided with a surface of revolution with respect to its journaling axis, a battery in said case, said case being provided with portions forming a surface of revolution with respect to said axis and closely conforming to the surface of revolution of said projector, and means for connecting said battery to said projector.

2. A portable searchlight comprising a polyhedral case, one dihedral angle of which has portions of its face walls removed and the opening thereby formed closed by a wall conforming to a surface of revolution, the axis of which approximately coincides with the corner edge of said dihedral angle, a light projector journaled to swing about said axis, said projector having a wall approximately conforming to said surface of revolution, and a source of energy arranged in said case and connected up to said light projector.

3. A portable searchlight including a case provided with a battery chamber extending substantially across the width of said case, the forward wall of said chamber being provided with terminal boxes arranged adjacent the top wall of said chamber, a reflector mounted to swing about a horizontal axis arranged at about the same elevation as said terminal boxes in the forward wall of said chamber, a lamp suitably disposed with respect to said reflector, a housing for said reflector provided with a surface of revolution adjacent said chamber, the searchlight case being constructed to conform to said surface of revolution, and means extending through said terminal boxes and said reflector housing for connecting said lamp with said battery.

4. In a portable searchlight, a case or housing, a light projector journaled on an axis and provided with a wall conforming to a surface of revolution with respect to said axis, said case or housing being provided with a wall conforming to a surface of revolution with respect to said axis and adjacent to the similarly formed wall of the projector, an electric lamp in said projector, a battery in said case or housing, and means extending through said walls for electrically connecting said lamp to said battery.

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