

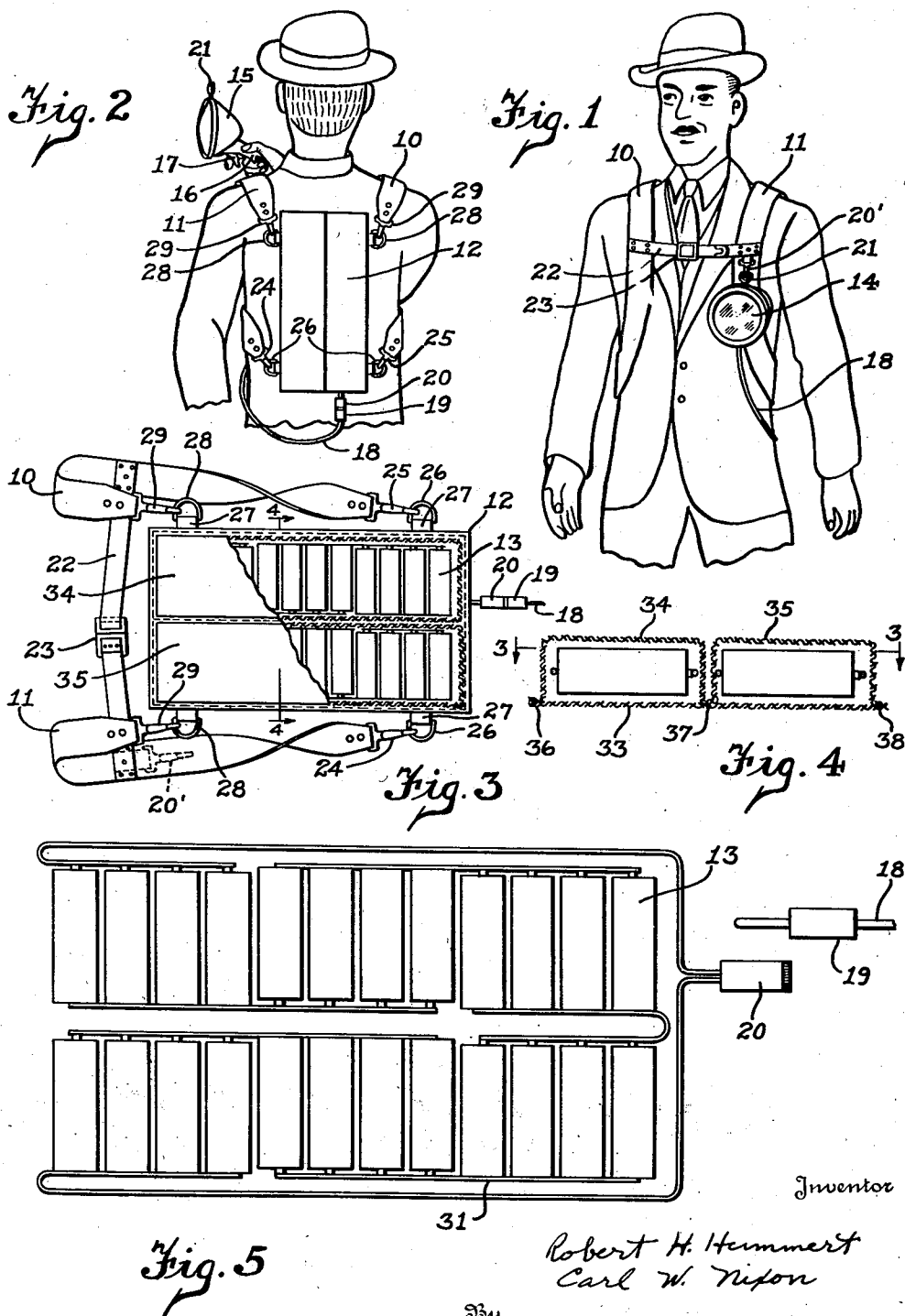
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PORTABLE LIGHT

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PORTABLE LIGHT

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2 Claims. (Cl. 240—59)

This invention relates to portable lighting apparatus and more particularly to searchlights and carrying means therefor.

One object of the invention is the provision of a portable lighting apparatus including an electric lamp carried by a shoulder strap so that it may be worn on the user, the shoulder strap also carrying a number of dry cells arranged in a comparatively flat package having some flexibility so that it may accommodate itself to the back of the person.

Another object of the invention is the provision of a portable lighting apparatus including two carrying straps adapted to extend over both of the shoulders of a person, the straps forming a support for a package of dry cells arranged to be carried on the back of the user and provided with connection means for electrically connecting the dry cells to a searchlight which is also carried by one of the shoulder straps.

Another object of the invention is the provision of a dry cell package including a container formed of flexible material and having a comparatively small thickness as compared to its length and width, the container enclosing a number of dry cells which are provided with electrical connection wires that afford relative movement of the cells so the package may be worn on the back of a person and accommodate itself to the general form of the person's back.

Other objects and advantages of the invention will be apparent from the following description, the appended claims, and the accompanying drawing, in which:

Fig. 1 is a view looking at the front of a person on which the portable lighting apparatus is supported;

Fig. 2 is a rear view of the person showing how the dry-cell package is supported on his back;

Fig. 3 is a view of the cell package and its carrying harness, with a portion of the package shown in section;

Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 3; and

Fig. 5 is a diagrammatic showing of the electrical connections between the various dry cells of the package.

Referring more particularly to the drawing, in which a preferred embodiment of the invention has been illustrated, 10 and 11 designate a pair of flexible shoulder straps, of fabric, leather or other suitable flexible material, which are adapted to be carried over the two shoulders of a person, these straps being detachably connected

at their lower ends to a package 12 of dry cells 13 which provide an electrical source for the energization of an electric lamp 14. The lamp, as shown, is a portable searchlight including a casing 15 having a pistol grip 16 and a trigger 17 which is adapted to be controlled by the finger of the user so as to operate a switch to connect and disconnect the lamp bulb in circuit with the battery of dry cells through connection wires provided in a cable 18 extending from the lamp handle or grip. This cable is provided with a connection plug 19 adapted for quick connection to a connection plug member 20 connected to the battery. The lamp, when not in use is supported by means of a snap hook 20' carried by one of the shoulder straps, this snap hook engaging a carrying ring 21 on the top of the lamp housing. The person can readily disengage the lamp from the snap hook and carry the lamp in his hand so that the searchlight beam can be directed to any desired point.

The front portions of the shoulder straps 10 and 11 are interconnected by means of a chest strap 22 which is formed of two strap portions connected by a buckle 23 so that the distance between the forward portions of the shoulder straps can be adjusted. The lower ends of the forward portions of the shoulder straps extend down along the sides of the user, below his arms, and project around toward the back where they are detachably connected by snap hooks 24 and 25 to rings 26 which are arranged on short fabric tabs 27 forming a part of the cell package. Rings 28 adjacent the upper ends of the cell package are similarly connected to snap hooks 29 arranged on the ends of the rear portions of the shoulder straps as will be apparent from Figs. 2 and 3.

The cell package is a flexible comparatively flat unit of such construction that it can readily accommodate itself to the back of the user and conform to the general outline of the user's back, permitting free motion and providing for the support of the dry cells in a location where they may be readily carried without fatigue. The total width of the package is preferably such as to extend only part-way between the arm locations, the package having a considerably greater length in a vertical direction, and being of comparatively small thickness, as the dry cells, which are of standard construction as ordinarily used in flashlights, are arranged in a single layer or plane. The width of the package, as shown, is such as to accommodate two rows of dry cells, each row including a number of cells arranged in

line and electrically connected by wires 31 which are soldered to the zinc casings and to the positive terminals so that a number of cells, herein shown as four in number, are arranged in parallel connection and each group of four cells is connected in series with the other groups to provide adequate capacity and voltage. The wires which extend between adjacent cells have sufficient flexibility so that adjacent cells may move with respect to one another, while maintaining their spacing distance.

The container, in which the dry cells are entirely enclosed and protected, is a flexible waterproof fabric or rubber case, including a sheet 33 which is adapted to be positioned against the back of the user, and covering sheets 34 and 35 which are sewed or connected along lines 36, 37 and 38 along opposite ends to the sheet 33 so as to provide two closed compartments, laterally spaced apart, and connected together along a longitudinal hinge line corresponding to the line 37 so that the two compartments can move with respect to one another in conforming to the movements of the user, and also permitting the two compartments to be placed one above the other to reduce the total width of the package in shipment.

The dry cells may be connected together as will be shown in Fig. 5, and then assembled as a unit in the casing by sliding the cells along the compartments of the container through one open end of the container which can then be closed or sewed together so that the dry cells will be entirely closed and protected. The wires leading from the dry cells extend out through a small opening in the lower end of the case and are connected to the plug member 20. The rings 26 may be very readily disconnected from the snap hooks on the carrying straps so that the dry cells and their case may be exchanged for a case of fresh cells when they are discharged.

Inasmuch as the dry cell package is supported at its sides, adjacent its upper and lower ends, upon the back of the person, and since it is of comparatively small thickness and of considerable length and substantial width, with adequate flexibility to accommodate itself to the back of the user and distribute the load, the user will not be hindered in his movements, and no substantial pressure will be exerted at any one point of his back. The device thus forms a searchlight unit that may be carried by any person for general usage, and is especially desirable for sportsmen, firemen, etc., the harness arrangement permitting the device to be worn by persons of different stature and in spite of heavy coats and

auxiliary clothing that might be worn by the user.

While the form of apparatus herein described constitutes a preferred embodiment of the invention, it is to be understood that the invention is not limited to this precise form of apparatus, and that changes may be made therein without departing from the scope of the invention which is defined in the appended claims.

10 What is claimed is:

1. A portable lighting apparatus comprising two carrying straps adapted to extend over both of the shoulders of a person, a lamp detachably carried by one of said straps, a battery case formed of flexible material and carried by said straps so as to be worn on the back of a person, said case having a comparatively small thickness as compared to its length and width and providing a pair of vertically extending parallel flat pockets for positioning side by side on the back of the person, said pockets being flexible throughout their vertical extent and flexible with respect to one another and each having such length as to extend from a point back of the shoulder of a person to a point adjacent his waist, a single row of dry cells enclosed in each of said pockets, said cells being arranged all in a single common plane, connections between said cells affording relative movement of the cells in the case, and a connection lead independently of said carrying straps and extending from said cells to the lamp.

2. A portable lighting apparatus comprising two carrying straps adapted to extend over both of the shoulders of a person, a lamp detachably carried by one of said straps, a battery case formed of flexible material and carried by said straps so as to be worn on the back of a person, quickly detachable connections between the straps and the upper corners of the case, said case having a comparatively small thickness as compared to its length and width and providing a pair of parallel pockets for positioning side by side on the back of the person, said pockets having a longitudinally extending flexible hinge connection to one another substantially in the plane of a major surface of the case so that one pocket can be folded over on to the other, a row of dry cells enclosed in each of said pockets with the cells arranged in a single common plane, a connection plug arranged externally of said case and electrically connected to said cells, and a connection lead extending from said lamp and having a terminal adapted for instantaneous connection to said plug.

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