

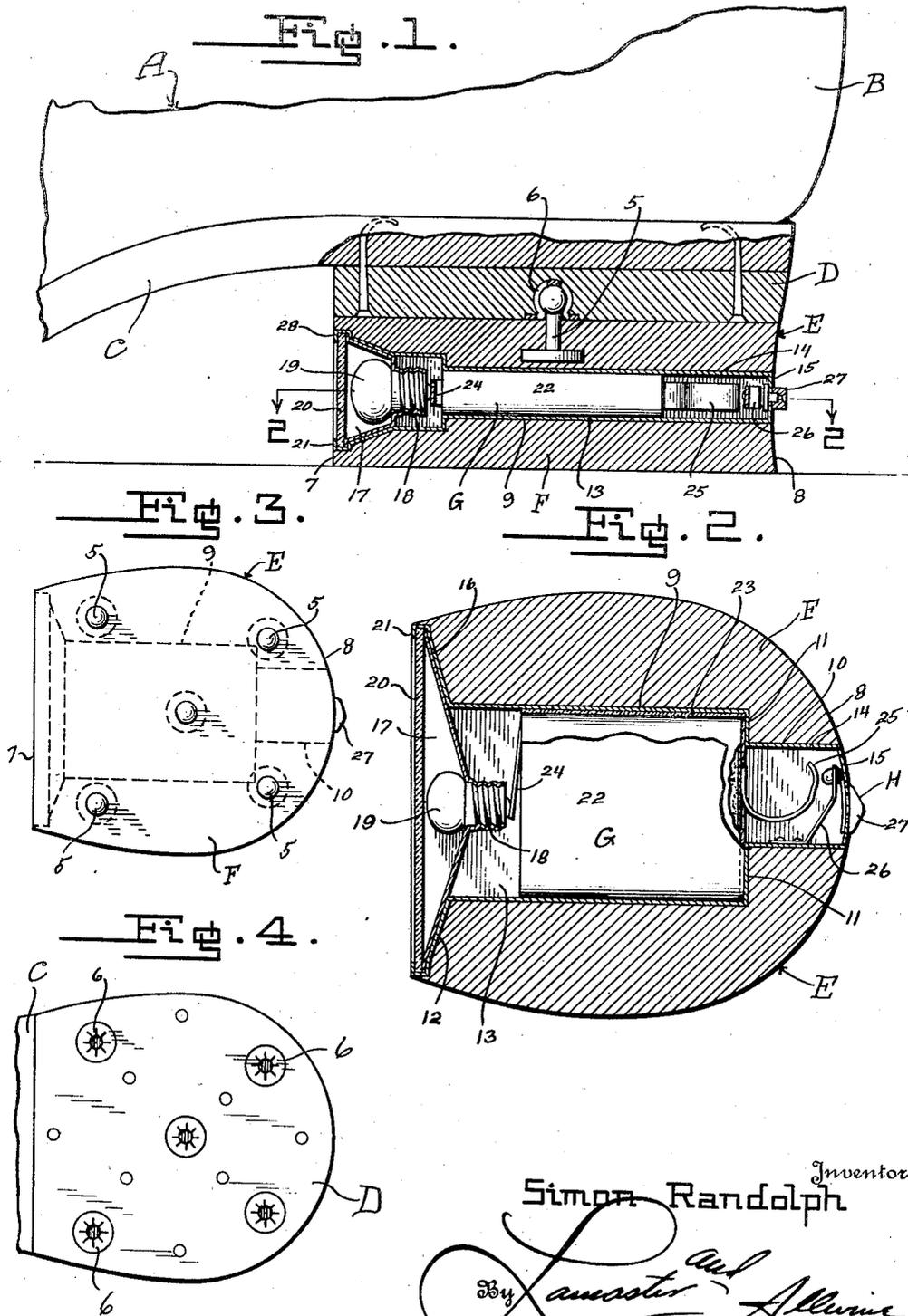
Aug. 31, 1926.

1,597,823

S. RANDOLPH

LIGHT PROJECTING ATTACHMENT FOR SHOES

Filed April 4, 1925



Inventor
Simon Randolph
By *Lawson and Allvine*
Attorneys

UNITED STATES PATENT OFFICE.

SIMON RANDOLPH, OF LYNCH, KENTUCKY.

LIGHT-PROJECTING ATTACHMENT FOR SHOES.

Application filed April 4, 1925. Serial No. 20,732.

The present invention relates in general to shoes, and more specifically to novel illuminating means incorporated in the heel structure of shoes.

5 The primary object of the invention being to provide a light projecting attachment for shoes, whereby the light rays from the illuminating means may be directed to effectively illuminate the adjacent surface
10 upon which a person is walking.

A further object of the invention is the incorporation within the heel structure of shoes, an illuminating means of the self-containing type, and which is so disposed
15 as to prevent direct light rays from the illuminating means striking the eyes of the person wearing the device.

A still further object resides in the novel construction of the device which permits
20 of easy attachment, ready detachment for replacing of parts, and compactness of parts which permits of the heel structure being of ordinary configuration.

Other objects and advantages of the invention will be apparent during the course
25 of the following detailed description, taken in connection with the accompanying drawing, forming a part of this specification, and in which drawing,

30 Figure 1 is a fragmentary side view of a shoe, and showing the improved illuminating device applied thereto, the illuminating device and its adjacent shoe portion being shown in central vertical section.

35 Figure 2 is a horizontal sectional view taken substantially on the line 2—2 of Figure 1, and looking downwardly.

40 Figure 3 is a slightly reduced top plan view of the device shown detached from the shoe; and,

Figure 4 is a fragmentary bottom plan view of the heel portion of a shoe and showing the attaching means for the illuminating device.

45 Referring to the drawing in detail, wherein for the purpose of illustration is shown but the preferred embodiment of the invention, and wherein similar reference characters designate corresponding parts throughout the several views, the letter A designates
50 a shoe of ordinary construction, including an upper B; a sole portion C, and a lift

D, said lift being rigidly secured to the rear portion of the sole portion C and forming
55 a fixed upper heel section for detachably receiving the improved heel structure designated as a whole by the letter E. The heel structure E which forms the lower lift for the heel of the shoe comprises a major heel section F; a self-contained illuminating
60 means G, and a switch mechanism H.

The major heel section F, which may be formed of any suitable material such as rubber, leather, or a composite material, preferably has embedded in the upper surface
65 thereof, a plurality of stud members 5 having enlarged head portions thereof projecting past the upper surface of the section for engaging in a plurality of similarly arranged yieldable sockets 6 embedded in the
70 lower surface of the upper lift section D. These stud members 5 and yieldable sockets 6 provide means for permitting of ready and easy attaching and detaching of the major heel section from the upper lift section D,
75 thus permitting of ready replacing of parts, and allowing for interchanging of the heel structure E should it become desirable to merely attach the light projecting heel structure when travelling at night or when passing
80 through dark passageways. Formed in the heel section F, and extending from the front wall 7 to the rear arcuate wall 8, is a pocket of special configuration formed with a relatively flat intermediate portion 9 and
85 a reduced rear end portion 10 providing abrupt shoulders 11 at the intersection of the portion 9 and 10. The forward end of the pocket portion 9 preferably flares outwardly as at 12, and terminates adjacent the
90 marginal edges of the front face 7. This pocket may be formed in the heel in any desired manner, either during moulding of the heel; should the same be of rubber, or during construction thereof should the heel
95 be formed of a plurality of leather lifts.

Fitting in the pocket formed in the heel section F, and conforming to the configuration of the pocket, is a metal lining 13 formed at its rear end with a switch housing
100 14 adapted to fit in the reduced pocket portion 10 with its rear wall 15 closing the rear end of the pocket and conforming to the curvature of the rear heel wall 8. Fitting

in the flaring portion 16 of the lining 13 and in electrical contact therewith, is a metal reflector 17 provided at its axial center with a threaded socket portion 18 adapted for threaded reception of an ordinary electric lamp 19 of the shell and central contact type. A lens 20 is disposed at the forward edge of the reflector 17 and may be held in position as by bending the forward ends of the lining 13 about the edges of the lens as at 21.

A battery 22 of ordinary construction, being enclosed by a layer of insulating material 23, and provided at one end thereof with the usual spring contact arm 24, is adapted to be positioned in the intermediate pocket portion 9 with the contact arm 24 thereof in electrical contact with the central contact of the lamp 19. When in position in the pocket, it will be seen that the shoulders 11 will limit rearward movement of the battery within the pocket.

Referring now to the switch mechanism H for completing the circuit through the lamp 19, the same embodies in part, a semi-circular shaped spring contact arm 25 having one end thereof rigidly secured to the bottom wall of the shell of positive terminal of the battery 22 and extending rearwardly into the switch housing 14. Secured to one side of the metal housing 14, is a spring switch arm 26 adapted to have its free end portion moved into contact with the rear end of the contact arm 25 upon sliding movement of a button 27 mounted in a slot in the rear housing wall 15, and having the head thereof extending outwardly of the housing for permitting of ready manipulation thereof.

It will readily be seen that upon closing of the circuit between the contacts 25 and 26, that a circuit will be completed through the metal lining 13 to the shell of the electric lamp 19 for lighting the lamp.

Any suitable means such as cement or suitable fastening elements may be employed for securing the illuminating means within the heel F; and if desirable the channel section 28 disposed at the upper edge of the lens 20 may be capable of being slid transversely of the lining 13 for permitting of the replacing of parts when such becomes necessary.

From the foregoing description of this invention it will be apparent that a novel light projecting attachment for shoes has been provided, which will in no wise detract from the general appearance of the shoe to which the device is applied, and which is so disposed upon the shoe as to have the light rays from the illuminating means effectively illuminate the adjacent surface upon which a person is walking.

Various changes may be made to the specific form of the invention herein shown

and described, without departing from the spirit of the invention or the scope of the following claims.

I claim:—

1. In combination with a shoe including a heel section formed with an opening extending longitudinally of the shoe and opening at the front and rear walls of the heel, a lining disposed in said opening and including a rear wall for closing the opening at the rear of the heel, a self-contained electrically operated illuminating means disposed inwardly of the lining in a manner whereby the light rays therefrom will project from the opening at the front of the heel, normally spaced apart contact arms disposed inwardly of the rear wall of the lining, and means carried by the rear wall of the lining for moving the contact arms into engagement with one another for completing the circuit through the illuminating means.

2. In combination with a shoe including a heel section formed with a pocket flaring outwardly at the front wall of the heel; a self-contained electrically operated illuminating means disposed in said pocket, a reflector disposed at the flaring portion of the pocket for directing the light rays forwardly of the heel, a lens at the front of said reflector, and switch means for controlling the circuit through the illuminating means.

3. In combination with a shoe including a heel section formed with an opening extending longitudinally of the shoe and opening at the front and rear walls of the heel, a metal lining for said opening having an end wall for closing the opening at the rear of the heel, a battery fitting in said lining and having spring contact arms of unlike poles projecting from opposite ends thereof and with the arm at the forward end thereof in engagement with the central contact of an electric lamp, a metal reflector having a threaded socket for reception of the base of the lamp, in contact with the metal lining, a lens positioned at the front of the reflector, a switch arm secured at one end to the metal lining and having its free end portion in close proximity to the rear contact arm of the battery, and means carried by the rear wall of the lining for moving the free end of the switch arm into circuit completing relation with said rear contact arm.

4. A heel structure adapted for detachable connection with a shoe, comprising a body portion formed with a longitudinally extending opening flaring outwardly at its forward portion and being reduced at its rear portion for providing shoulders intermediate the ends of the opening, a battery fitting in said opening and engaging said shoulders for limiting the rearward move-

ment of the battery, a spring contact arm projecting from the forward end of the battery for engaging one terminal of an electric lamp, a reflector disposed about said lamp for directing the light rays therefrom forwardly of the heel structure, a lens disposed at the forward end of the reflector, and switch means disposed in the opening rearwardly of the shoulders for completing a circuit from the opposite pole of the battery to the opposite terminal of the electric lamp. 10

SIMON RANDOLPH.