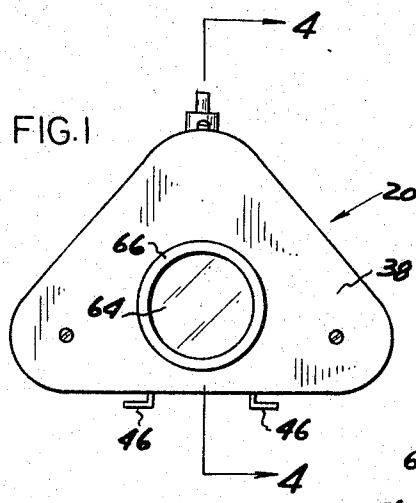
March 14, 1967 L. LEVY ETAL 3,309,514

FLASHLIGHT ATTACHMENT FOR CLIPBOARDS

Filed Oct. 21, 1965 2 Sheets-Sheet 1

FIG. 1



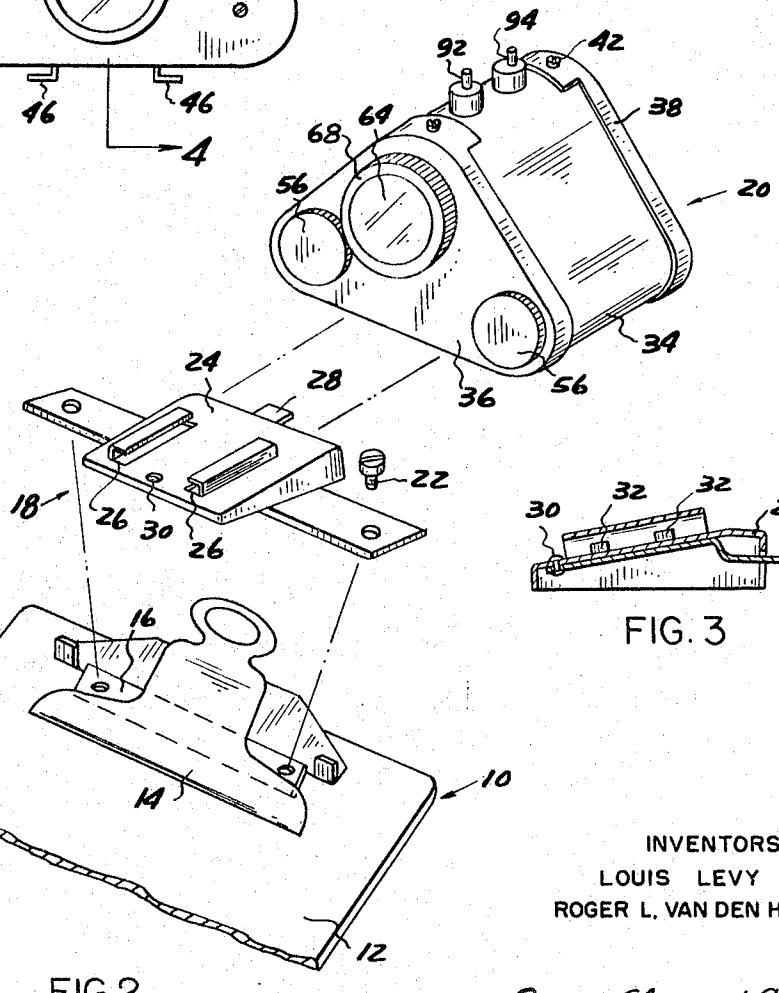


FIG. 2

FIG. 3

INVENTORS
LOUIS LEVY
ROGER L. VAN DEN HOUT

BY Cullen, Sloman & Cantor
ATTORNEYS

March 14, 1967 L. LEVY ETAL 3,309,514

FLASHLIGHT ATTACHMENT FOR CLIPBOARDS

Filed Oct. 21, 1965 2 Sheets-Sheet 2

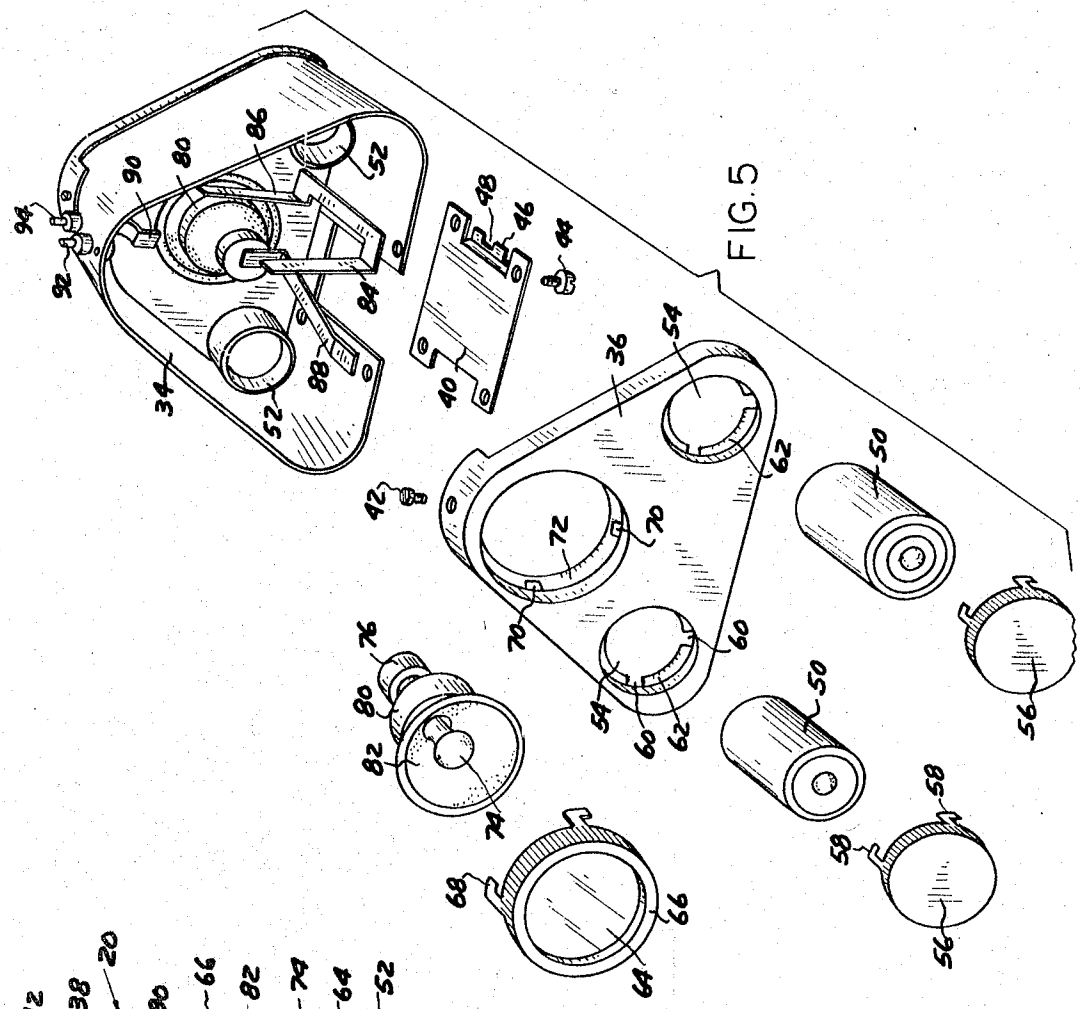


FIG. 5

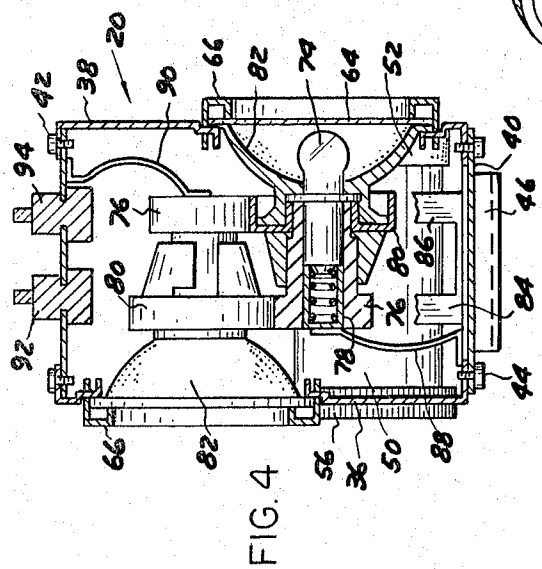


FIG. 4

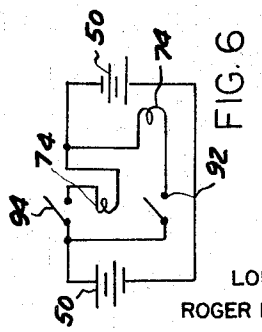


FIG. 6

INVENTORS
LOUIS LEVY
ROGER L. VAN DEN HOUT

BY Cullen, Sloman & Cantor
ATTORNEYS

United States Patent Office 3,309,514
Patented Mar. 14, 1967

3,309,514

FLASHLIGHT ATTACHMENT FOR CLIPBOARDS

Louis Levy, 1 Lafayette Plaisance, Detroit, Mich. 48207, and Roger L. Van Den Hout, 5 Colonial Parkway, Pittsford, N.Y. 14534

Filed Oct. 21, 1965, Ser. No. 500,111
4 Claims. (Cl. 240—6.4)

This application is a continuation-in-part of our copending application, S. N. 407,690, filed October 30, 1964, and entitled, Flashlight Attachment for Clipboards.

This invention relates to a flashlight attachment for clipboards.

Conventional paper clamping and supporting clipboards are frequently used in dark places, such as by meter readers, or at night, such as by gas station attendants. The user must carry a flashlight to illuminate the paper on the clipboard and the meter or other object providing data to be recorded. Thus, the user of such a conventional clipboard frequently finds it awkward and difficult to simultaneously handle the clipboard, the writing instrument and the flashlight.

Thus, it is an object of this invention to provide a flashlight attachment for clipboards wherein a flashlight may be easily and removably secured to the clip portion of the clipboard so that the flashlight and the clipboard may be handled as a unit.

A further object of this invention is to provide a flashlight attachment for clipboards wherein the flashlight is double ended in that it shines either forwardly or rearwardly, so that it illuminates the paper upon the clipboard, or a meter or the like being read by the user of the clipboard, or both simultaneously.

These and other objects and advantages of this invention will become apparent upon reading the following description, of which the attached drawings form a part.

In these drawings:

FIG. 1 is an elevational view of the rear of the flashlight unit.

FIG. 2 is a front perspective view of the flashlight, mounting bracket, and clipboard components disassembled from each other.

FIG. 3 is a cross-sectional elevation of the mounting bracket.

FIG. 4 is a cross-sectional view of the flashlight unit taken in the direction of arrows 4—4 of FIG. 1.

FIG. 5 is an exploded perspective view of the flashunit.

FIG. 6 is a circuit diagram of the flashlight.

With reference to FIGS. 1 to 3, the clipboard **10** includes a rigid support board **12** and a clip **14** pivotally secured to the support board near its upper end. Clip **14** is resiliently biased downward against support board **12** and includes a widened lower portion arranged to clamp against a sheet or pad of paper supported on the clipboard. The above construction is typical of a conventional clipboard and forms no part of the invention herein.

The detachable mounting arrangement includes a lower bracket **16**, which is slipped through the space between the underside of clip **14** and the support board **12**, and an upper bracket assembly **18**. The flashlight **20** is removably mounted upon the upper bracket assembly **18**.

The upper bracket assembly **18** is assembled to the lower bracket **16** by means of screws **22**. Upper bracket assembly **18** comprises a support pad **24** which is pierced so as to form a pair of slots **26**. A spring lock **28** is riveted at **30** to pad **24**. Lock **28** includes two pairs of upwardly projecting pawls **32** which extend through the pierced portions of pad **24**. The purpose of this lock will be described hereinafter.

Referring now to FIGS. 1, 4 and 5, flashlight **20** generally comprises a casing sidewall **34**, a front cover plate **36**, a rear cover plate **38**, and a bottom plate **40**. The front and rear cover plates **36** and **38** are fastened to the casing sidewall **34** by means of a pair of top screws **42** and four bottom screws **44** which pass upwardly through bottom plate **40** and flange alonge the lower portion of the front and rear cover plates into the lower portion of casing sidewall **34**. A pair of L-shaped guides **46**, each containing a pair of cutout notches **48**, is formed in bottom plate **40**. These guides **46** cooperate with slots **26** in pad **24** as will be described below.

A pair of conventional flashlight batteries **50** is received in sockets **52**, which may be riveted to the inner face of rear cover plate **38**. Batteries **50** may be replaced through battery openings **54** in front cover plate **36**. Openings **54** are then closed by means of battery caps **56** which are provided with bayonet prongs **58**. These prongs cooperate with notches **60** formed in flange **62** surrounding openings **54**, and thereby secure caps **56** to cover plate **36**.

The front and rear bulb assemblies are identical and comprise a lens **64** seated in a bezel **66** which is assembled to the respective cover plates by a bayonet type of connection. This connection comprises prongs **68** which lock into slots **70** formed in flanges **72** surrounding each of the lens openings.

Bulb **74** seats in a plastic socket **76** having a metallic contact cup **78**. A metallic contact ring **80** surrounds socket **76** and is fastened to reflector **82** by means of a bayonet type configuration. Contact ring **80** establishes an electrical contact with the flange of bulb **74**.

The electrical circuit, illustrated diagrammatically in FIG. 6, is established in the following manner. Batteries **50** are oriented in opposite directions as they are inserted into the flashlight, so that a series connection between the two of them is provided by front cover **36**. A single wire runs from one of the batteries to front switch **92** and then to front base contact **90**. The circuit to the front light is completed through cup **78**, bulb **74**, front contact ring **80**, front side contact **84** and a wire passing to the other battery. The circuit for the rear light is similar, but employs switch **94** and contacts **88** and **86**.

It can be seen from FIG. 4 that the front and rear bulb assemblies lie in contact with each other, with the lower assembly partially supporting the upper assembly. This configuration provides additional internal rigidity and support for the flashlight.

In operation, the user first secures the mounting bracket assembly comprising elements **16** and **18** to the clip **14** of clipboard **10**. The flashlight **20** is then aligned so that the L-shaped guides **46** may be slidably inserted into slots **26** of pad **24**. As the flashlight is slid onto pad **24**, the spring lock **28** is manually depressed so that pawls **32** lie below the surface of pad **24** and out of the path of guides **46**. Once the flashlight is seated on pad **24**, spring lock **28** may be released, thus allowing pawls **32** to pass upward through the openings in pad **24** and into notches **48** in guides **46**. In this way, flashlight **20** is securely locked to clipboard **10**.

To remove the flashlight, the user simply depresses spring lock **28** and slides the flashlight assembly **20** out of slots **26**.

In addition to providing convenient illumination of both the subject being observed and of the pad on the clipboard, the unique construction of this flashlight achieves an extremely compact arrangement. The overall length of the flashlight has been shortened by reason of the lateral displacement of the batteries from each other. Also contributing to a shortened overall length is the longitudinal overlap of the two bulb assemblies.

This invention may be further developed within the scope of the following claims. Accordingly, it is desired that the foregoing description be read as merely illustrative of a single operative embodiment of the invention, and not in a strictly limited sense.

We now claim:

1. A flashlight attachment for clipboards, comprising:

a casing comprising a base and front and rear end covers, the length of said casing between said front and rear end covers being just sufficient to accommodate the length of an ordinary flashlight battery;

means for mounting within said casing two flashlight batteries, said batteries being axially aligned with the length of said casing and disposed abreast of each other;

a first bulb, socket, and reflector assembly mounted in said front end cover;

a second bulb, socket, and reflector assembly mounted in said rear end cover;

said first and second bulbs being arranged to shine in opposite directions;

electrical circuit means including switch means operatively connecting said batteries and said bulbs;

and mounting means for detachably securing said base of the flashlight to the clip of a conventional clipboard.

2. The flashlight attachment of claim 1, wherein the axes of said first and second bulb assemblies are laterally displaced from each other and wherein the socket ends of said bulb assemblies longitudinally overlap and abut each other.

3. A flashlight attachment for clipboards, comprising:

a casing comprising a base and front and rear end covers, said casing being generally prismatic in shape with said end covers each being shaped generally as an isosceles triangle and with the base of each of said triangles corresponding to the base of said casing;

the length of said casing between said front and rear end covers being just sufficient to accommodate the length of an ordinary flashlight battery;

two batteries mounted within said casing, said batteries being parallel, axially aligned with the length of said casing, and laterally displaced from each other at opposite vertices of said casing base;

a first bulb, socket, and reflector assembly mounted in said front end cover;

a second bulb, socket, and reflector assembly mounted in said rear end cover;

said first and second bulb assemblies being arranged to shine in opposite directions;

the axes of said first and second bulb assemblies being laterally displaced from each other, the socket ends of said bulb assemblies longitudinally overlap and abut each other;

electrical circuit means including switch means operatively connecting said batteries and said bulbs;

and mounting means for detachably securing said base of the flashlight to the clip of a conventional clipboard.

4. A combination clipboard and flashlight comprising:

a support board having a flattened sheet metal clip hingedly secured thereto at one end thereof for clamping paper under the clip and against the board;

a flashlight casing comprising a base and front and rear end covers, the length of said casing between said front and rear end covers being just sufficient to accommodate the length of an ordinary flashlight battery;

means for mounting within said casing two flashlight batteries, said batteries being axially aligned with the length of said casing and disposed abreast of each other;

a first bulb, socket, and reflector assembly mounted in said front end cover;

a second bulb, socket, and reflector assembly mounted in said rear end cover;

said first and second bulbs being arranged to shine in opposite directions;

electrical circuit means including switch means operatively connecting said batteries and said bulbs;

a bracket means secured upon the exposed surface of the clip and engaged with cooperating means formed upon said flashlight casing for attaching said flashlight casing to the clip, with said flashlight casing being arranged upon the exposed surface of the clip and axially transverse to the clip;

wherein one of the lights is arranged to shine forwardly of said board end, while the other of said lights thereby shines along the board surface to illuminate the paper clamped thereto.

References Cited by the Examiner

UNITED STATES PATENTS

1,807,501	5/1931	Alexander	240—52.5 X
2,329,556	9/1943	Raabe	246—6.4
2,753,443	7/1956	Grohsgal	240—10.63
2,769,895	11/1956	Boord	240—52.5 X
2,955,194	10/1960	Clyne	240—6.4
3,218,448	11/1965	Cala.	

NORTON ANSHER, *Primary Examiner.*

C. C. LOGAN, *Assistant Examiner.*