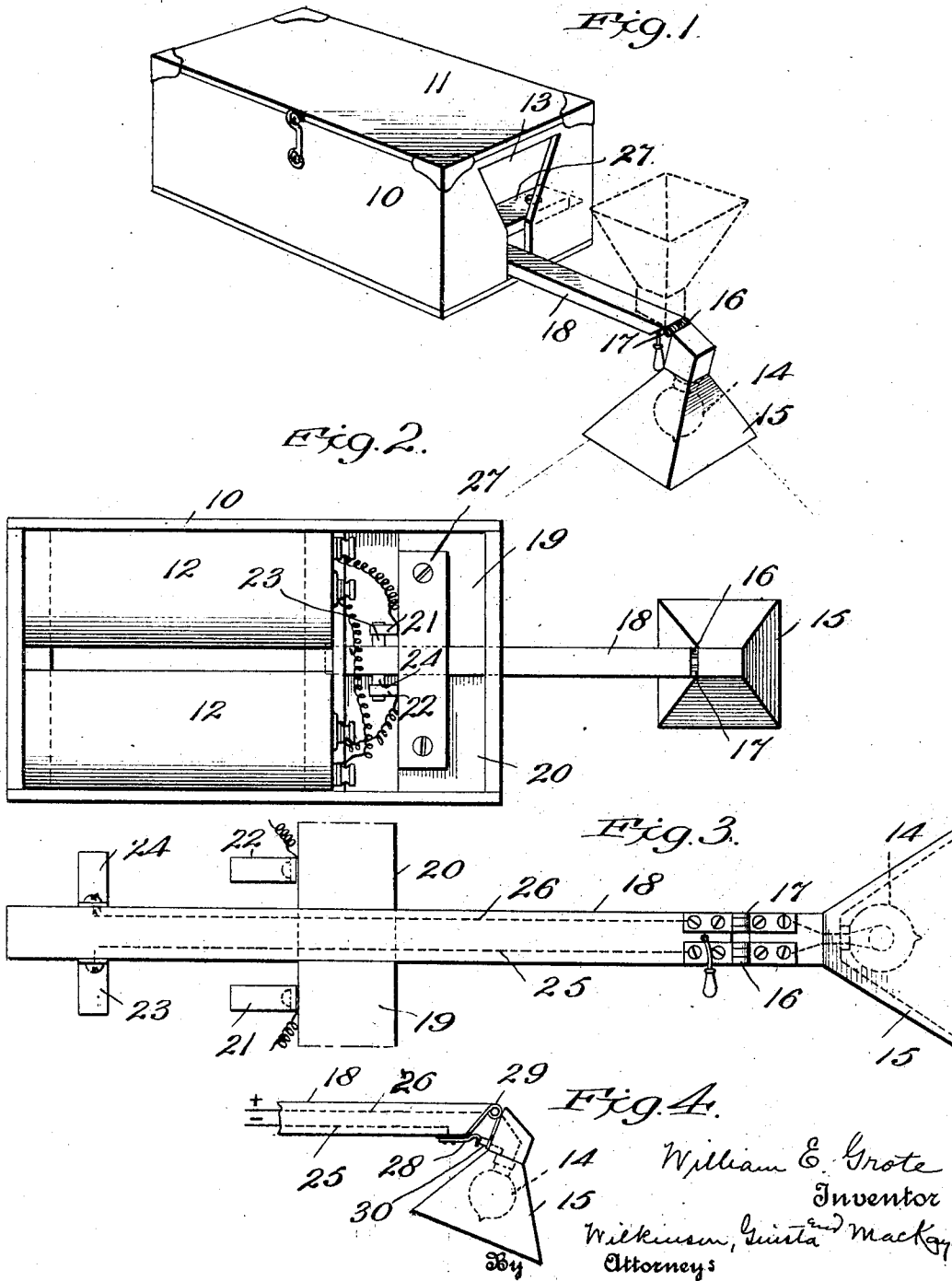


W. E. GROTE.
PORTABLE LAMP.
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PORTABLE LAMP.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM E. GROTE, a citizen of the United States, residing in the city and State of New York, have invented a certain new and useful Improvement in Portable Lamps, of which the following is a specification.

My present invention relates to an improved portable light especially useful for lighting written or printed music while playing the piano, or in other locations where it is desirable to direct a sufficient reading light upon a page without hiding the same from the reader, and while keeping the light out of the eyes of the reader.

My improvement provides means for this end which are capable of being made very slightly and are very compact and convenient for packing away or carrying about. When not in use my improved apparatus may be so closed up as effectually to protect the lamp.

The invention is shown in a preferred form in the accompanying drawings, wherein—

Figure 1 is a perspective view of the entire device in use, Fig. 2 is a plan view of the same with the cover removed, Fig. 3 is a bottom plan view of the moving parts, and Fig. 4 is a side elevation of a modification.

My invention comprises a suitable container for a battery, a lamp, a movable support for the latter carried by the container and circuit closing means so arranged that, when the lamp is brought into useful position, the battery is made to supply the current which lights said lamp.

In the drawings the container takes the form of a box 10, having a cover 11, within which are laid two large dry cells 12. One end of the box is cut out, as at 13, to provide an opening of suitable shape to admit the lamp and reflector when the entire device is to be closed up when not in use.

The incandescent bulb 14 is contained within a reflector 15, hinged as at 16 and 17 to the outer end of a sliding bar 18. The inner end of this bar is arranged to slide in under and between the cells 12, when the device is closed up, and it is confined and guided between cleats or guide blocks 19, 20. These blocks carry knife-switch contact pairs 21, 22, as shown in Fig. 2, which are permanently connected with the opposite terminals of the battery.

Contact plates 23, 24, are firmly fixed to opposite sides of the bar 18, in such a position that, when the bar is fully drawn forward, these plates enter the contact pairs 21, 22, the plates 23, 24, are electrically connected by wires 25, 26, to the separate hinges 16 and 17 (see Fig. 3) and these latter are respectively connected to the opposite terminals of the lamp 14. The cleat 27 holds the bar 18 in place between the guide blocks.

When it is desired to extinguish the light it is only necessary to push in the bar 18 far enough to break the circuit at the switch terminals 23, 24. The reflector can be turned up into the position shown in dotted lines in Fig. 1; and, the bar 18 being pushed home, the reflector is passed into the opening 13, thus closing the device. The shape of this opening 13 is preferably such as just to admit the reflector, which then serves to act as a door or lid for said opening.

It will be seen that a device of this kind can be set down on the top of an upright piano, for instance, and, by drawing out the bar and turning down the reflector, as shown in Fig. 1, a bright light is thrown exclusively upon the music rack, the performer's eyes being shaded, while, at the same time, the lamp and shade do not interfere with a clear view of the page.

In Fig. 4, for instance, there is shown a structure whereby the lamp circuit is closed finally by turning the lamp and reflector down into reading position. For this purpose the two wires 25 and 26 are connected, one to a spring 28 and the other to the hinge 29. One lamp terminal is connected to the hinge and the other to a contact piece 30. When the reflector is turned down, as shown, the lamp is lighted by contact between 28 and 30.

It will be seen that in my apparatus there is provided a portable self-contained means capable of placing, for instance, on the top of an upright piano; and wherein the batteries serve not only to provide current, but as counterweights permitting the lamp to be drawn far forward without danger.

What I claim is:

1. A portable lighting apparatus comprising in combination a container having a forward opening, weighting batteries therein, a bar adapted to be slid completely within said container or outward through said opening at will, an electric lamp pivotally supported upon the outer end of said bar,

a switch operated by movements of said bar, and appropriate electric connections between said switch, and battery and said switch and lamp substantially as described.

5 2. A portable lighting apparatus comprising in combination a container having a forward opening, weighting batteries therein, a bar adapted to be slid completely within said container or outward through said
10 opening at will, an electric lamp and re-

flector pivotally supported on the outer extremity of said bar, said reflector being so shaped as to be adapted to close said opening when tilted upward, a switch operated by movements of said bar, and appropriate electric connections between said switch and battery and said switch and lamp, substantially as described. 15

WILLIAM E. GROTE.

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