A. V. T. DAY.

SELF LUMINOUS WRITING INSTRUMENT.

APPLICATION FILED SEPT. 25, 1918.

1,420,184.

Patented June 20, 1922.

Fig. 1.

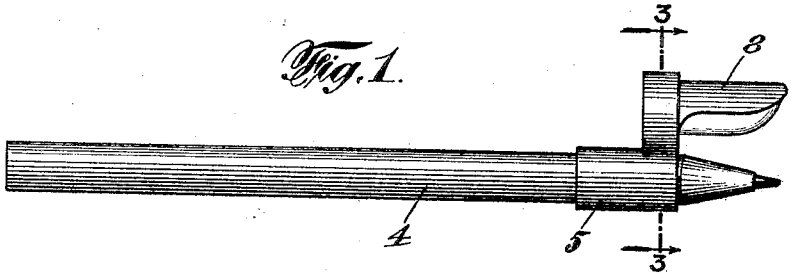


Fig. 2.

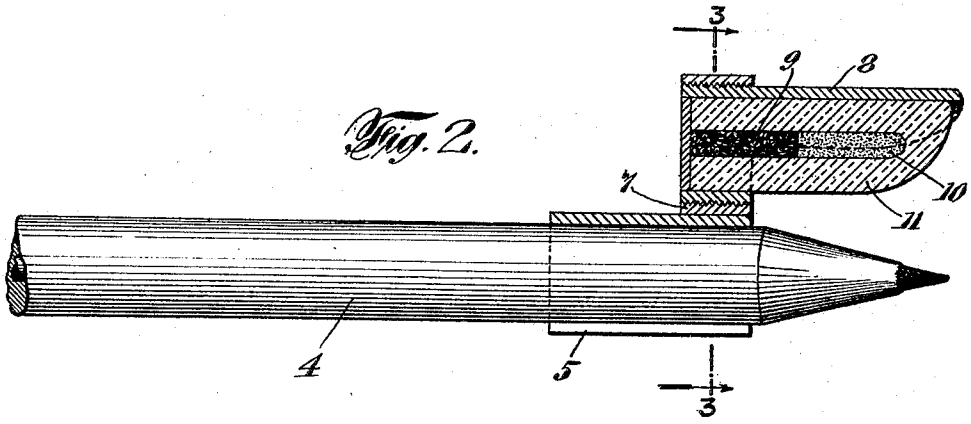
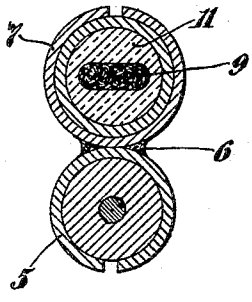


Fig. 3.



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SELF-LUMINOUS WRITING INSTRUMENT.

1,420,184. Specification of Letters Patent. Patented June 20, 1922.

Application filed September 25, 1918. Serial No. 255,556.

To all whom it may concern:

Be it known that I, ALBERT V. T. DAY, a citizen of the United States, and residing at New Rochelle, county of Westchester, and State of New York, have conceived certain new and useful inventions embodied in the Self-Luminous Writing Instrument set forth in the following specification and illustrated in the accompanying drawings.

This invention is a self-luminous writing instrument, to enable the user to write in the dark without the aid of any light extraneous to the device itself; and it will be useful also as a lamp of small power for limited use, for instance to read in the dark by close application of the lamp to the text.

One adaptation of the invention is illustrated in the accompanying drawings in which:

Figure 1 is a longitudinal view of a self-luminous writing and reading device:

Figure 2 is a corresponding enlarged mid-sectional view thereof; and

Figure 3 is a transverse section thereof on the plane 3—3 of Figures 1 and 2.

In this instance the invention is applied to a lead pencil, and in such manner that the self-luminous parts may be separated from the writing device proper and may be attached to various devices. Hence, in this aspect, the invention is an attachment for pencils, pens, and the like; but the self-luminous parts may also be manufactured with the rest of the writing instrument as a permanent part thereof.

In the illustrated device, a longitudially split spring tube 5 grips the pencil 4 and carries a longitudinally split spring tube 7 connected to the pencil tube 5 by solder 6. The spring tube 7 is interiorly threaded to receive the lamp casing 8 screwed into and gripped by it. The lamp casing 8 is cylindrical at its base, and from its base forward it is cut away on one side to expose the lamp proper, consisting in a glass tube 11 closed at its front end by fusion and secured in the casing by the front lip 13 thereof and a rear plate 12 suitably fastened. The front end of the lamp bore contains radio-active self-luminous material 10, and its rear end is sealed by a suitable plug 9, for instance asbestos impregnated with varnish.

The lamp casing will have a light-reflecting inner surface, or the glass lamp tube will be reflectively surfaced under the casing. In either event the light will be reflected from one side of the lamp tube toward the other side presented to the writing paper or other surface to be illumined, and the reflecting side of the lamp will screen the self-luminous material from view of the user, to avoid confusing the vision by its relative brightness in direct view. The lamp bore may be flat, as indicated, presenting one flat side toward the reflector, and the other toward the direction of illumination. The self-luminous material will preferably be in loose powder form, and will itself be translucent or transparent so as to transmit light disseminated from all its interior particles, and retransmit its own rays passing into it from the reflector.

The longitudinal and angular positions of the lamp on the pencil are adjustable by shifting the pencil tube on the pencil and by turning the lamp casing in the lamp tube 7.

The invention comprehends all adaptations within the definitions of the following claims:

1. A self-luminous writing instrument comprising a marking device and a self-luminous body secured thereon at one side of the axis of the marking device and near its marking point, and a rotatable screen secured at one side of the self-luminous body.

2. A self-luminous writing instrument comprising a marking device and a self-luminous body longitudinally adjustable thereon in a general position near the marking point of said device and at one side of its axis, and a screen adapted to screen said self-luminous body on one side and rotatably adjustable about it.

In testimony whereof, I have affixed my signature to this specification.

ALBERT V. T. DAY.