

120,736

PATENT



SPECIFICATION

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Complete Accepted, May 15, 1919.

COMPLETE SPECIFICATION.

Magnesium Lamp for Photographic Use.

I, JENS PETER HANSEN, of Jacobys Allé 10, Copenhagen, Denmark, Factory Director, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 This invention relates to a magnesium-lamp for photographic use, and in which, for ignition of the light-producing powder, is used an ordinary match, which is struck against suitable striking composition.

Lamps of this kind as hitherto used have the drawback of being rather large and complicated, and are not reliable in use nor free from danger.

10 The object of the present invention is to overcome these inconveniences. The lamp is moreover collapsible, so that it may be carried in the pocket.

In the accompanying drawings are shown various embodiments of the invention, but it should expressly be mentioned, that the characteristic features of the invention consist in the placing and displacement or turning of the match;

15 while all the other parts of the mechanism may be varied in many different ways.

In the drawings,

Figure 1 shows a form of lamp in side view ready for use.

Figure 2 is a detail of the match-holder.

20 Figure 3 shows the lamp in plan view.

Figure 4 is a side elevation of another form of construction of the lamp.

Figure 5 is a perspective view of the arrangement of the match-holder on the mechanism.

Figure 6 illustrates the placing of the match in the striking-composition.

25 The lamp itself consists of a plate 1, which is horizontal when in working position, with a bent rear edge 2, upon which the back plate 3, which is vertical when in working position, is fixedly mounted and kept fast in the open position by a pair of leaf-springs 4.

30 The front part 5 of the plate 1 is stepped upward and provided with an up-standing outer edge 6. In the middle of the member 5 is stamped out a tongue 7 which is below the level of the member 5 so that by this tongue and the surrounding edges of the member 5 there is formed a holder, which may be of a yielding character.

35 On the underside of the plate 1 there is arranged near the rear edge 2, a hoop 8 for receiving the end of limb 15 of the handle 14—15, and across the upper side of the plate lies a match-holder 9, which in the form of construction now being described is square, and so arranged, that it may pass through a corresponding

[Price 6d.]



hole in the rear-edge 2. The holder 9 has a through hole 10, so that the device may be cleaned, and carries a screw 11. The rear-end of the holder 9 has a cylindrical neck 12 and a head 13, of rectangular form.

The handle consists of a V-spring, the two limbs of which are designated 14 and 15 respectively. The upper part of the branch 15 has a bend 16, which engages with a slot, formed by the limb 14, after which the end of the bend 16 is bent up at 24, while the outer end is arranged to co-operate with the hoop 8, so that the plate 1 may set fast on the handle. As an alternative it is obvious that the portion 24 of the limb 14 might co-operate with a hoop attached to the back plate by giving same a slight bend to one side.

The upper end of the limb 14 is likewise bent, and forms a slot for the head 13 of the match-holder 9.

The limbs 14 and 15 may have a pair of finger plates 17 to conveniently manipulate the handle.

The apparatus acts in the following manner:—

The back plate 3 is put up, so that the holding springs 4 keep the plate in the vertical position. The holder 9 is pushed back, and the slot in the limb 14 is passed over the head 13, with the holder in the horizontal position.

When the head 13 has come behind the slot, so that the sides thereof embrace the neck 12, the holder is turned into the vertical position, and the end of the branch 16 is pushed into the hoop 8. This position is shown in Figures 1 and 3.

The bent striking-composition member 18 is now placed in the clip between the tongue 7 and the plate, 5, and the plain end of a match 19, which is introduced between the two pieces of the striking-composition, is pushed into the match holder 9, and is clamped fast by the screw 11. Light-producing powder is then placed on the plate 1 above and around the holder 9, and in such a manner, that there is plenty of powder at the place, where the match 19 leaves the hoop of the striking composition 18.

The apparatus is now ready for use, and in such a way that the limbs 14 and 15 are pressed together, or rather the limb 14 is pressed up against the limb 15; the head of the match 19 is drawn out of the striking-composition 18, which yieldingly embraces the head and as the match catches fire, it will at the same time ignite the powder lying on the plate 1.

When the apparatus is not used, the handle 14 - 15 is removed, and is together with the match holder 9, placed on the plate 1, after which the plate 3 is shut down. The whole apparatus takes up but little room, and is easily transportable.

Instead of the head 13 any other means of connection between the holder and the spring-branch 14 may be used.

In Figure 4 is shown a modified form of construction for the actuating of the match-holder 9, which has in this modification behind the back plate 3, a head 13, but this co-operates with a pin 20, which by a Bowden release 21 is in connection with a press-knob 22 and corresponding handle 23, so that the pin 20 may be pushed forward, which movement is transferred to the head 13, and therefrom to the match-holder. By this arrangement the handle 14-15 is superfluous, and the lamp may then be worked at a distance, as the Bowden release may be of any length. Moreover, the lamp may be arranged to be used as well with a handle as with a Bowden release, as might be preferred, in that the Bowden release may be arranged to draw instead of to pull; its front part (the wire and the end of the spiral) may then be fastened respectively to the head 13 of the match-holder and to an elongation upwards of the handle-branch 15.

Whether it has a handle release or a Bowden release this lamp is absolutely free from danger, as it is free from the springs now in use, which must be "set" before use and the release of which may happen inadvertently and untimely. Likewise all failure is prevented (a good composition on the match being assumed) owing to the striking-composition squeezing the match during the pulling out.

As a modification should be mentioned that the match-holder need not necessarily be displaced, but it may be arranged to swing around a fixed centre, so that the match is ignited by swinging on above or between the striking composition.

- 5 For executing this movement the same transmission devices as above described may be used.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

- 10 1. A magnesium lamp for photographic use, characterized by a match-holder movable by a fixed handle and a movable handle, and mounted on a plate, serving for the light powder, striking composition adapted to surround a match is applied in a clip and clamped fast in such a manner that the displacement of the holder will draw the head of the match out of the striking-composition and
15 into the light-powder which is situated immediately behind the striking-composition, whereby the powder will take fire.

2. Device according to Claim 1, characterized thereby, that a back plate is fastened in a hinged and springing manner to the bent rear edge of the plate, which back plate forms in the collapsed position room for the handle and the
20 match-holder.

3. Device according to Claims 1 and 2, characterized thereby, that the rear end of the match-holder has a neck and a head which co-operate removably with one limb of the handle.

4. Device according to Claim 1, characterized by the use of a handle, consisting of two elastic limbs, of which the one may be fastened on either the horizontal plate or the vertical plate, and the other co-operate with the match-holder.
25

5. Device as claimed in Claim 1 or 2 characterized by a Bowden release which is adapted to displace the match holder and the handle dispensed with if desired
30 substantially as described.

6. The improved magnesium lamp, substantially as hereinbefore described and as illustrated in the accompanying drawings.

Dated this 15th day of November, 1918.

MARKS & CLERK.

SHEET 1.

SHEET 2

Fig 1.

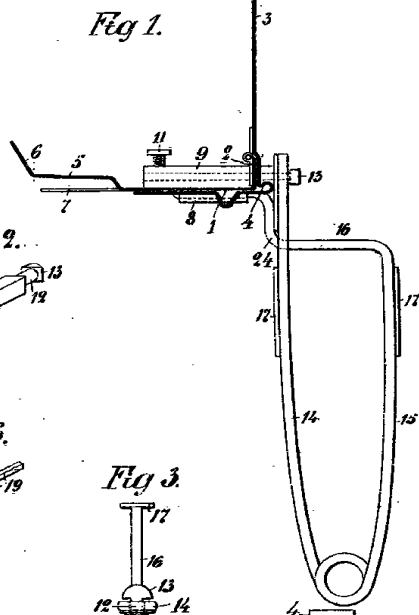


Fig 2.

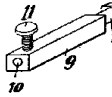


Fig 6.



Fig 3.

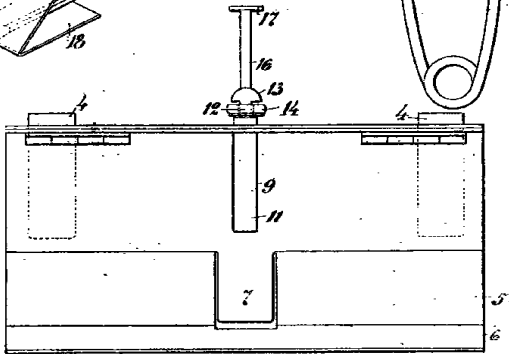


Fig 4.

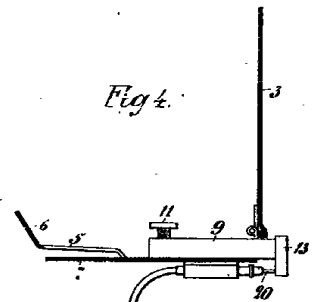
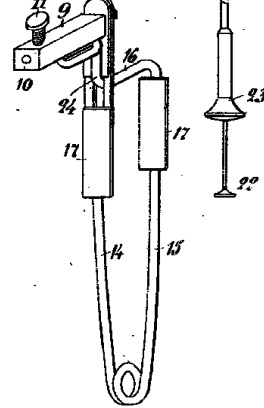


Fig 5.



[This Drawing is a reproduction of the Original on a reduced scale.]

Fig 1.

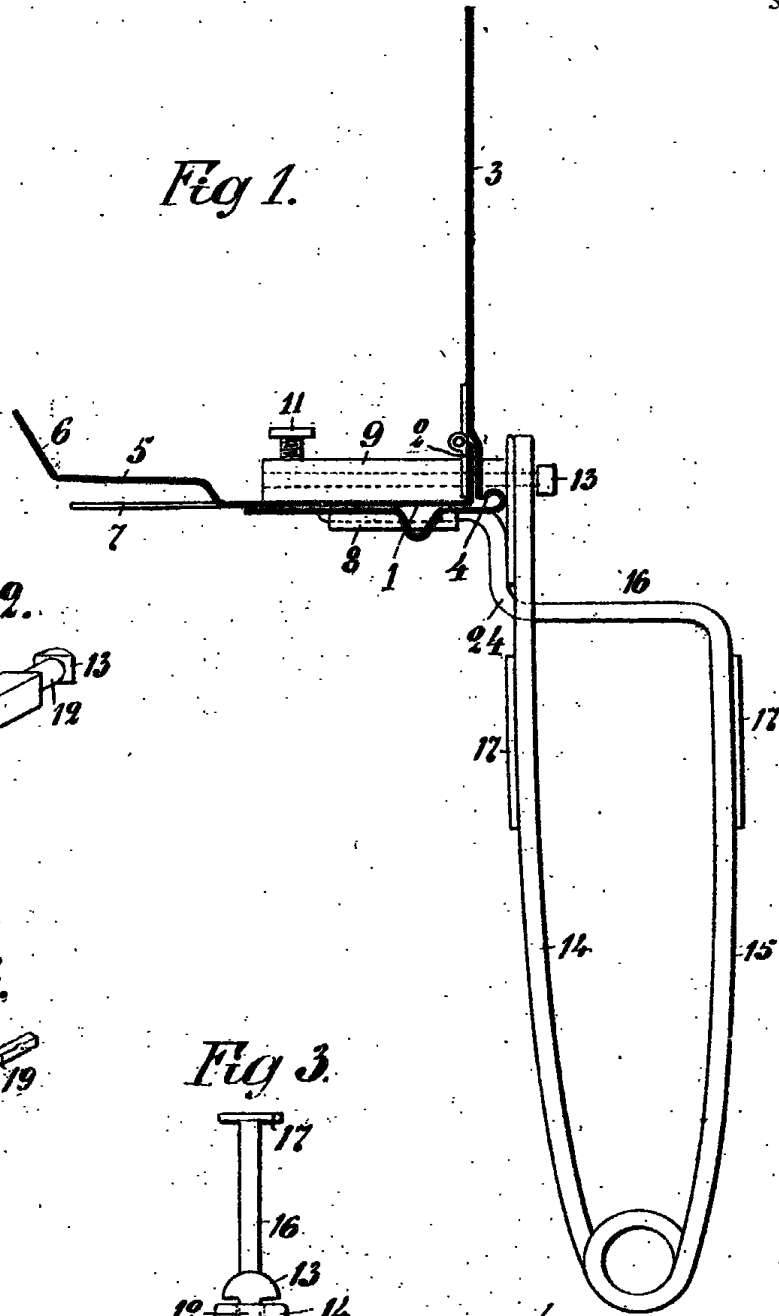


Fig 2.

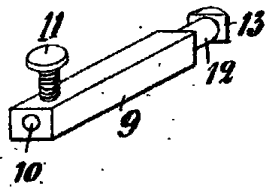


Fig 6.

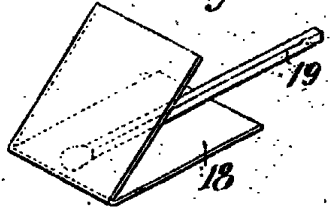
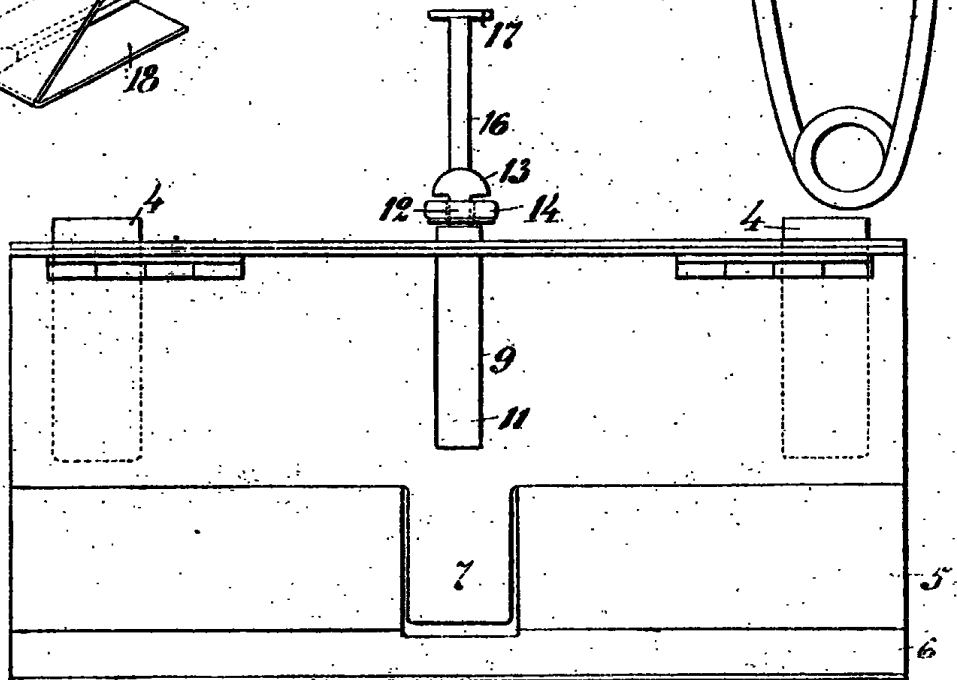


Fig 3.



[This Drawing is a reproduction of the Original on a reduced scale.]

Fig 4.

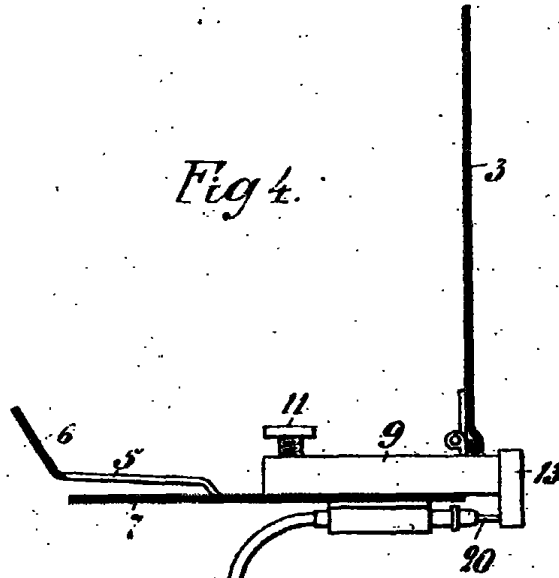


Fig 5.

