

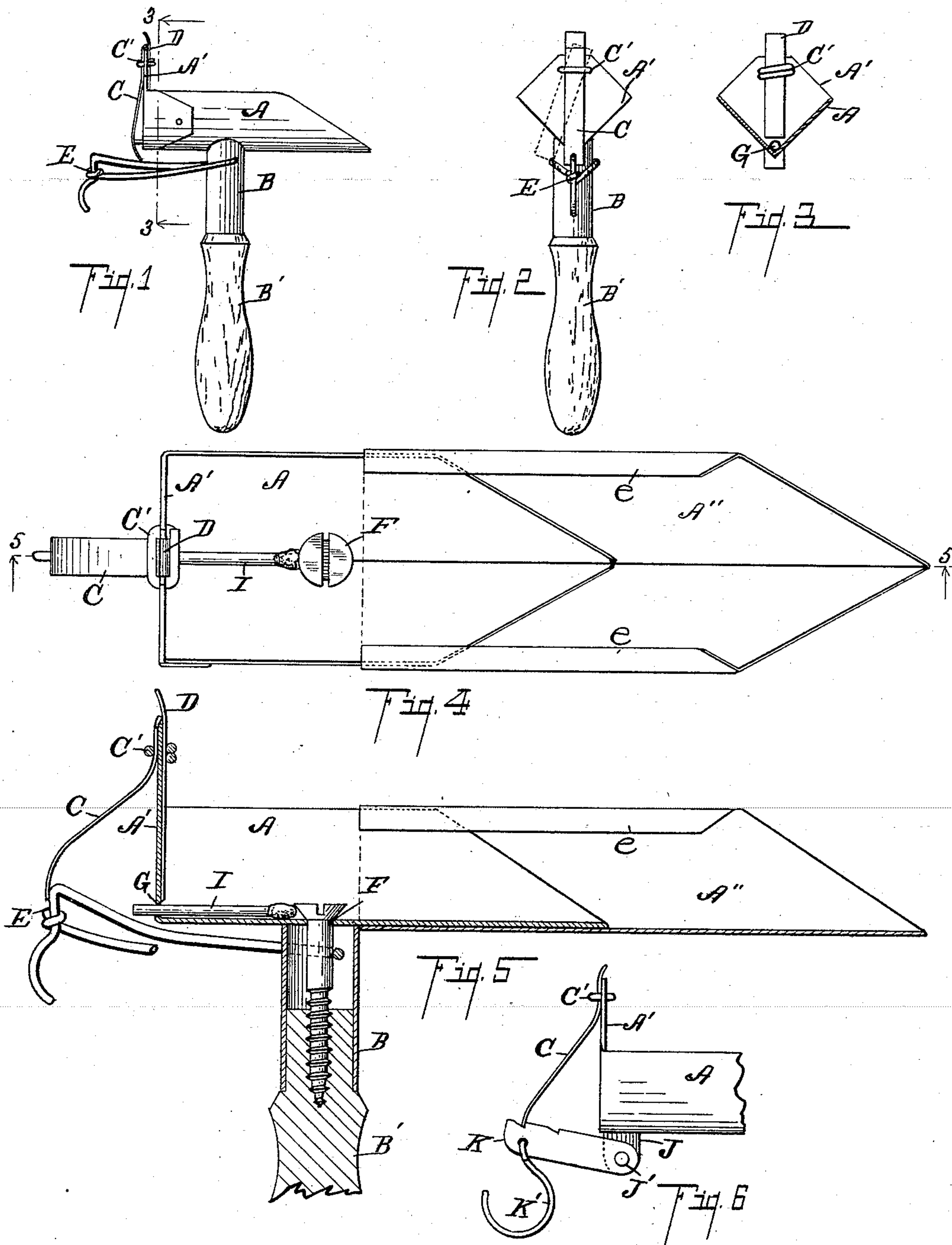
No. 637,800.

Patented Nov. 28, 1899.

C. W. KING.  
FLASH LIGHT DEVICE.

(Application filed Dec. 28, 1898.)

(No Model.)



Witnesses:

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Inventor,

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Att'y.



# UNITED STATES PATENT OFFICE.

CHARLES W. KING, OF KALAMAZOO, MICHIGAN.

## FLASH-LIGHT DEVICE.

SPECIFICATION forming part of Letters Patent No. 637,800, dated November 28, 1899.

Application filed December 28, 1898. Serial No. 700,555. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. KING, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a certain new and useful Improvement in Flash-Light Devices, of which the following is a specification.

This invention relates to improvements in devices for producing flash-lights for photographic purposes.

The object of the invention is to provide a simple, efficient, and compact device capable of use by a photographer or an amateur and conveniently carried with the small or folding cameras now in such common use, so that a flash-light may be conveniently utilized by the amateur photographer almost anywhere. The specific objects of the structure will definitely appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in this specification.

The invention is definitely pointed out and indicated in the claims.

The structure is fully illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the structure reduced in size. Fig. 2 is a rear end elevation of the same. Fig. 3 is a detail sectional elevation taken on line 3 3 of Fig. 1. Fig. 4 is an enlarged plan view of the structure appearing in Fig. 1. Fig. 5 is an enlarged detail longitudinal sectional elevation with the main parts of the structure taken on line 5 5 of Fig. 4. Fig. 6 is a detail elevation view of a modification of the structure.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, A represents the trough which is adapted to hold the powder for the flash-light, commonly known as "flash-light powder." This trough is shaped like a diminutive brick-hod. The trough may be of any convenient size, large or small, to accommodate the amount of powder desired to be consumed in a single flash. In place of the large heavy handle on a brick-hod is a handle B', with an elongated

metal shank B at the upper end to protect it from the heat of the flash-light powder. The handle is retained in place by a long wood-screw F, projecting through a hole in the bottom of the trough. The head of the screw projects up to serve as an anvil on which to explode the head of a match or other percussion material.

In the corner of the hopper A is a perforation G, of sufficient size for the introduction of a stem of a match I. On the transverse end A' of the hopper or trough is secured a spring C by means of a suitable clip C', a spring D being placed inside to serve as a support for the thin sheet metal of which the trough or hopper is made. A trigger is provided consisting, preferably, of a piece of wire which is pivoted to the shank B and projects back of the end A' of the trough or hopper, as clearly appears in Figs. 1 and 5. This trigger is adapted to swing up and engage the spring C and yet is easily drawn down to allow the spring to snap. The spring C is supported in such a manner that it can be swung to one side, as indicated by the dotted lines in Fig. 2. This permits the easy and safe insertion of a match or piece of a match, as I, appearing in Fig. 5. When this is inserted and the powder is placed above the same, (no powder being shown, however, in the drawings,) the spring C is drawn back and engaged by the catch of the trigger E. The operator then takes the apparatus in his hand by the handle B' and with his thumb or finger draws down the trigger E. The spring C snaps against the end of the match and drives it against the head of the screw F, which serves as an anvil, and the concussion causes the same to ignite, firing the powder very thoroughly and securing a prompt and efficient flash-light.

It will be observed that the article can be manufactured at a very light expense, that it must necessarily be very efficient, and at the same time the operator is perfectly protected from any injury in using the same. Where it is desired to produce a light of considerable duration, the trough A is lengthened by telescopic sections A'', which are adapted to slip onto the main part A of the trough and lengthen the same indefinitely,



so that the same can be conveniently extended a number of inches or several feet, for that matter, securing the most satisfactory results. I desire to state in this connection 5 that the structure can be greatly modified without departing from my invention. In Fig. 6 I show a modification of the trigger in which a piece K is pivoted by pivot J' to a lug J and a hook K' connected to the same. 10 Suitable notches are provided to set the spring to any point desired. It will be observed from this that a long handle can easily be provided for the hopper and the hook K' extended to enable the operator to hold the 15 flash-light to any height desired and in any position, and yet ignite it the same as before.

It is needless to remark that another projection than the head of the screw F might be provided as an anvil for exploding the 20 match, and, for that matter, any percussion device, such as a paper cap, might be used in that position, and a pin, like the stem of the match I, be provided for firing the same, which would be a mere equivalent.

25 I have shown the telescopic sections constructed in the most simple manner, which is preferred by me; but I am aware that these sections might be made in other ways and be equally efficient so far as supporting the powder for the flash-light is concerned, though 30 the particular form I have adopted possesses merit on account of its simplicity.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is— 35

1. In a flash-light device, the combination of the trough A with a transverse end A' perforated at G; a handle secured to the under side of the same by a screw F, the head of which projects within the trough to form 40 an anvil; a trigger pivoted to the said handle and projecting beyond the closed end of the trough; a spring C retained by a clasp C' to the end of the trough; and adapted to engage said trigger so it can be released to strike 45 the stem of a match projecting through the aperture G to explode the match on the head of the screw F which forms an anvil, all co-acting substantially as described for the purpose specified. 50

2. In a flash-light device, the combination of a trough with a suitable handle projecting from beneath the same; a perforation in said trough; a spring; a trigger to engage the spring and permit it on its release to strike a 55 match projecting through the perforation in the trough; and a projection in the trough to form an anvil to explode the match, for the purpose specified.

In witness whereof I have hereunto set my 60 hand and seal in the presence of two witnesses.

CHARLES W. KING. [L. S.]

Witnesses:

LELA M. BROWN,  
OTIS A. EARL.