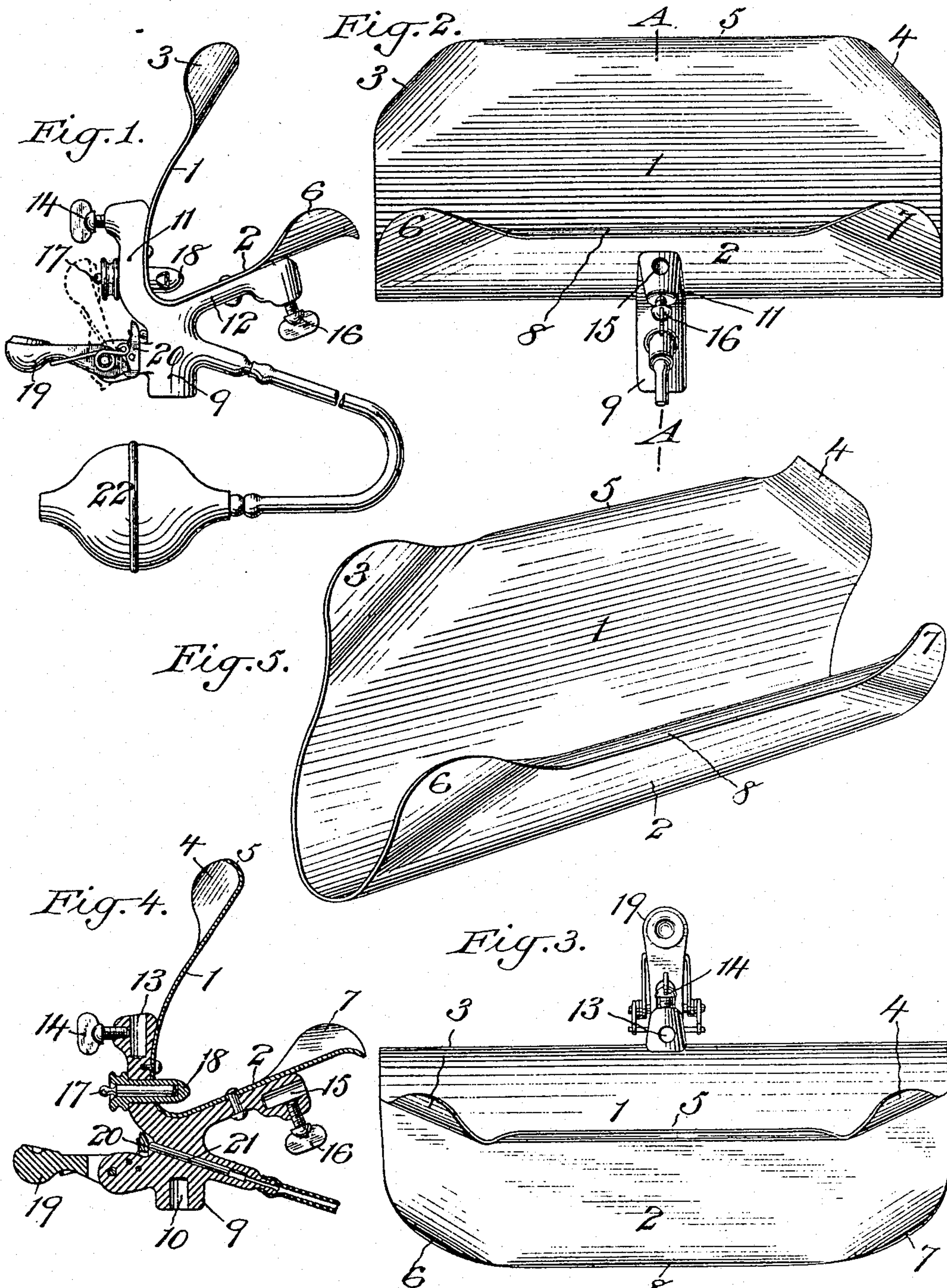


77. ILLUMINATING APPARATUS
Flash Lamp for Photographers' Use
Fulcrum Ignition

No. 835,240.

PATENTED NOV. 6, 1906.

G. F. FRALEY.
FLASH LAMP FOR PHOTOGRAPHERS' USE.
APPLICATION FILED MAR. 10, 1906.



Witnesses:
J. George Barry,
Henry Thieme

Inventor:
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by attorney
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UNITED STATES PATENT OFFICE.

GASSNER F. FRALEY, OF NEW YORK, N. Y.

FLASH-LAMP FOR PHOTOGRAPHERS' USE.

No. 835,240.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed March 10, 1906. Serial No. 305,200.

To all whom it may concern:

Be it known that I, GASSNER F. FRALEY, a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Flash-Lamp for Photographers' Use, of which the following is a specification.

The object of my invention is to provide a flash-lamp for photographers' use which will be capable of producing a flat flame of great area from an extremely small flash-pan, small quantity of powder, and minimum amount of concussion, the flash-pan being so shaped as to produce this result.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents the flash-lamp in side elevation, the hammer of the powder-ignition device being shown open in full lines and closed in dotted lines. Fig. 2 is a front view of the lamp. Fig. 3 is a top plan view of the same. Fig. 4 is a vertical section taken in the plane of the line A A of Fig. 2, and Fig. 5 is a view in perspective of the flash-pan for the purpose of giving a more comprehensive idea of the shape of the pan.

The flash-pan is open at its ends and has upwardly and forwardly inclined diverging top and bottom portions 1 and 2. The top portion has its corners extended rearwardly, as shown at 3 and 4, and also has its upper edge extended rearwardly, as shown at 5. The bottom portion 2 also has its corners extended rearwardly, as shown at 6 and 7, and has its outer edge extended forwardly, as shown at 8. The bottom portion 2 is substantially flat, while the top portion 1 presents a generally curved form when viewed in side elevation.

The shape of the flash-pan, as above described, causes the flame when the powder is ignited to not only spread freely laterally, but also to be directed diagonally upward as well as vertically in an upward and downward direction. The resultant flame is thus many times greater in extent than the width or height of the flash-pan, which result has not been accomplished by the flash-pans now in common use. Furthermore, the shape of the pan is such that for a given amount of powder a flame of very great area is produced,

which will be accomplished because of the thinness or sheet-like path into which the flame is directed, thus forming an attenuated flame of great area. Because of this spreading of the flame it will be seen that a lamp is provided which will produce a very large flame from a less amount of powder than has heretofore been feasible to use.

The support for the flash-pan comprises a vertical post 9, having a socket 10 therein for the reception of a tripod or other supporting-standard, which post 9 is provided with an upwardly-extended branch 11 and a forwardly-extended branch 12.

The upwardly-extended branch 11 is provided with a socket 13 and set-screw 14 for the attachment of a reflecting-screen when it is to be located to the rear of the flash-pan.

The forwardly-extended branch 12 is shown as being provided with a socket 15 and set-screw 16 for the attachment of the reflecting-screen when it is to be located to the front of the flash-pan for use as a light condenser or softener.

The ignition device comprises a firing-pin 17 and its anvil 18 for the reception of the ignition-cap. The spring-actuated hammer 19 is provided with a setting and tripping device 20, which is operated by a sliding plunger 21, controlled from an air-bulb 22.

The flash-lamp as herein described is a very compact device, and therefore may be readily moved from place to place.

What I claim is—

1. A flash-lamp comprising a powder-ignition device and a flash-pan open at its ends and having its top and bottom inclined upwardly and forwardly and diverging from each other, both the bottom and the top of the pan having their corners extended rearwardly for the purpose set forth.

2. A flash-lamp comprising a powder-ignition device and a flash-pan open at its ends and having its top and bottom inclined upwardly and forwardly and diverging from each other, the upper edges of the top and bottom being extended rearwardly and forwardly, respectively, and the bottom having its corners extended rearwardly for the purpose set forth.

3. A flash-lamp comprising a powder-ignition device, and a flash-pan having open ends

and upwardly-inclined diverging top and bottom portions, the said top and bottom portions having their upper edges extended rearwardly and forwardly, respectively, and their
5 corners extended rearwardly, for the purpose set forth.

In testimony that I claim the foregoing as

my invention I have signed my name, in presence of two witnesses, this 8th day of March, 1906.

GASSNER F. FRALEY.

Witnesses:

FREDK. HAYNES,
HENRY THIEME.