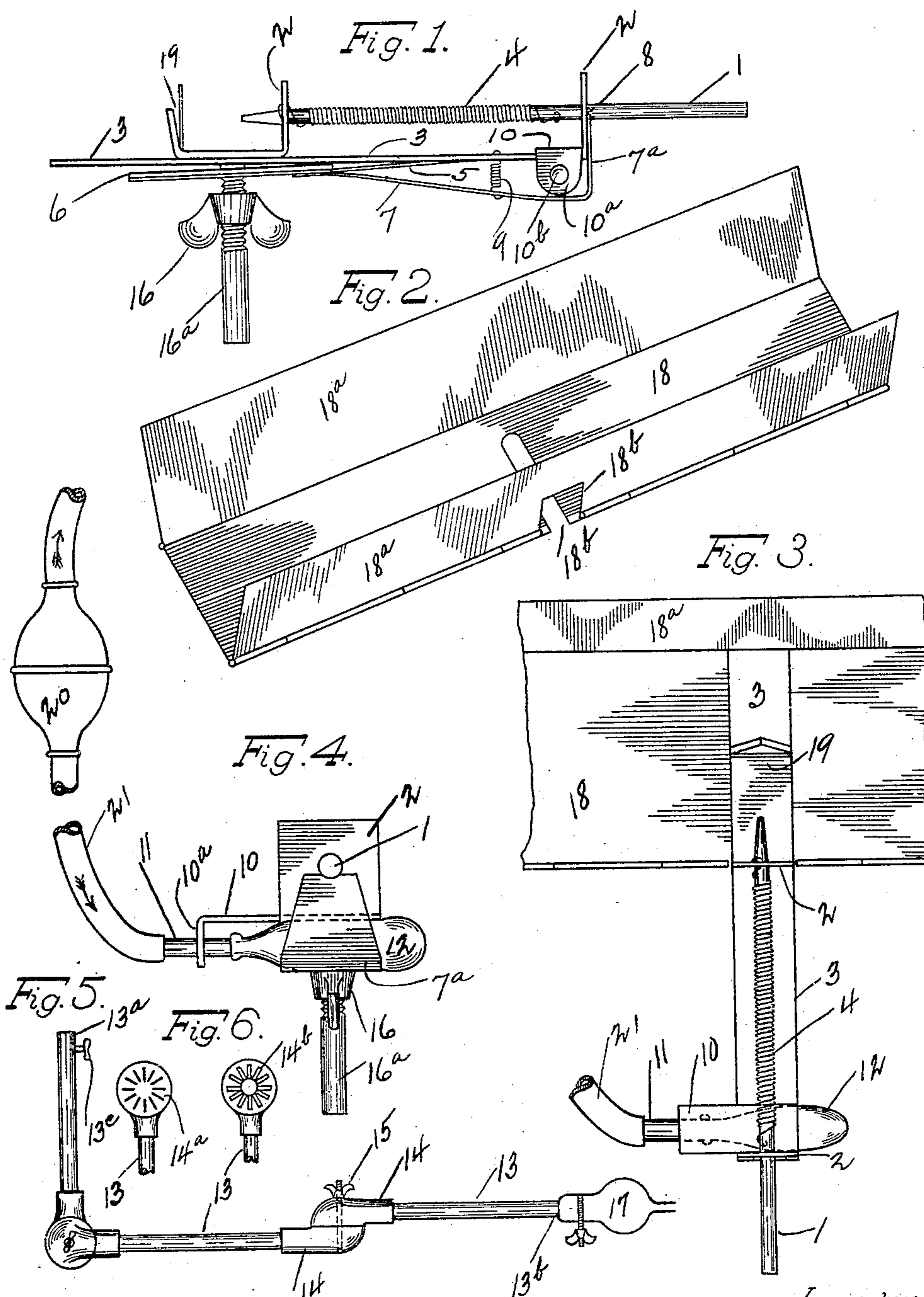


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 PHOTOGRAPHIC APPARATUS.  
 APPLICATION FILED APR. 1, 1910.

979,224.

Patented Dec. 20, 1910.



Witnesses:

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# UNITED STATES PATENT OFFICE.

CLARK R. THOMPSON, OF ST. LOUIS, MISSOURI.

PHOTOGRAPHIC APPARATUS.

979,224.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed April 1, 1910. Serial No. 552,916.

*To all whom it may concern:*

Be it known that I, CLARK R. THOMPSON, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Photographic Apparatus, of which the following is a specification.

This invention relates to improvements in devices for use in taking photographs by "flash light," the prime objects being to provide an extremely light and simple yet thoroughly trustworthy and practical apparatus, which may be manufactured at small outlay of time, labor, and money and which may be collapsed so as to be conveniently carried in the pockets of the operator's clothing. These desiderata I attain by the combination of parts and construction illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of my powder firing device; Fig. 2 a perspective of my folding powder-tray; Fig. 3 a top plan view of Fig. 1; Fig. 4 a front or end elevation of the latter; Fig. 5 depicting an adjustable handle I propose to use; and Fig. 6 presenting details of a portion of said handle.

That feature of my device to which I attach greatest importance is depicted in Fig. 1, and comprises a trigger mechanism composed of hammer or plunger 1, supported by a frame having brackets 2 rising at right angles from a base-plate 3, and mounting a helical spring 4, the latter engaged with one of said brackets and normally resisting the rearward movement of said plunger. Beneath member 3 and having connection therewith is a section of spring, or resilient, metal 5, one extremity of which engages a clamping-plate 6, and there is likewise affixed to the latter member an extremity of another section of spring, or resilient, metal 7 which diverges obliquely from member 3, as illustrated, and terminates at a point slightly beyond the vertical plane of bracket 2 in upstruck tongue 7<sup>a</sup>. Tongue 7<sup>a</sup> is designed to engage one or more notches 8 provided in the under surface of plunger 1 when the latter member is pulled backward by the operator, and in order to insure constant reliability in the operation of member 7 and its portion 7<sup>a</sup> a small spring 9 may be used as illustrated, although the presence of the latter will seldom, if ever, be required. In forming base-plate 3 there may simultaneously be provided an extension 10 there-

from, which terminates in a depending lug 10<sup>a</sup> having an aperture 10<sup>b</sup>, and through said aperture projects a metal tube 11 entering a nipple or bulb 12. The latter is an important adjunct of the aforesaid trigger mechanism and is disposed between and normally compressed by parts 3 and 7.

In order to eliminate the necessity for carrying about an extra tripod upon which to support the apparatus just described, I use the collapsible handle illustrated in Figs. 5 and 6, which consists of lengths of light, hollow tubing 13 joined to two-part revolving joints 14, internally provided with complementary radial shoulders and grooves 14<sup>a</sup>, 14<sup>b</sup>, which may be turned to any desired position and there retained by simply loosening and tightening thumb-screws 15 directed through their center. Extremity 13<sup>a</sup> of said handle is adapted to receive shank 16<sup>a</sup> of thumb-screw 16, illustrated in Figs. 1 and 4, while a universal clamping device 17 is disposed at extremity 13<sup>b</sup> of said handle enabling the latter to be fastened to a great variety of objects. There is further provided a folding powder-tray, comprising a body portion 18 and sides 18<sup>a</sup>, constituting shields, hinged thereto, the tray being provided with openings designed to cooperate with parts 6 and 16 as will be immediately described.

My complete photographic apparatus comprises, therefore, three separate parts, to wit: a handle, a folding powder-tray, and the aforesaid trigger mechanism for exploding the powder, which may hereinafter aptly be termed a "gun", and the adjustment and operation of said parts are as follows: The handle being drawn, in folded state, from the pocket of the operator, screws 15 are loosened and the several sections of tubing 13 then straightened out in any desired position, while the jaws of member 17 are closed upon a chair, picture molding, door knob or any other suitable object. The shank 16<sup>a</sup> of thumb-screw 16 is then inserted into tubing 13 at point 13<sup>a</sup> and held rigidly in such position by small set-screw 13<sup>c</sup>, while slots 18<sup>b</sup> permit the powder-tray to be clamped between plates 3 and 6 of the "gun" by means of screw 16. Plunger 1 is now drawn back against the resistance of spring 4 and retained by the engagement of tongue 7<sup>a</sup> with a notch 8; a small cap or a match head is inserted at point 19 in the path of said plunger; the powder is dis-

posed in tray 18, 18<sup>a</sup>, and in contact with said cap or match; and upon bulb 20 being sharply compressed by the operator, air is forced simultaneously in opposite directions 5 along tubes 21 thus opening the camera shutter, if desired, at the same instant that nipple 12 is expanded, the latter movement necessarily depressing members 7, 7<sup>a</sup>, and thus permitting said plunger to be impelled 10 against and explode the cap or match aforesaid.

I am well aware that the prior state of the art discloses flash light "lamps" having plungers actuated by helical and other 15 springs and that the release of said plungers from what may be termed a "cocked" position is instigated by the compression of a bulb which may simultaneously open the camera shutter, but I am not aware that the 20 combined features nor the principle of what I have termed my trigger mechanism are anticipated.

What I claim as new and desire to secure by Letters-Patent is:—

25 1. A device of the character described comprising a separable and collapsible powder-tray and an apparatus for exploding powder disposed in said tray, said powder exploding apparatus composed of a frame, 30 a plunger supported by said frame, means for actuating said plunger, an air bulb, a

clamping device, a portion of the latter resiliently connected with said frame, and a member normally compressing said bulb and adapted to retain said plunger against 35 the resistance of said actuating means, the expansion of said bulb releasing said plunger from a cocked position, and said powder-tray having apertures for the introduction of an extremity of said powder-exploding apparatus and said clamping device. 40

2. A device of the character described comprising a separable and collapsible powder-tray and an apparatus for exploding 45 powder disposed in said tray, said powder-exploding apparatus composed of a frame, a plunger supported by said frame, a spring actuating said plunger, an air bulb, a clamping device, a portion of the latter resiliently connected with said frame, and a member 50 normally compressing said bulb and adapted to retain said plunger against the resistance of said spring, the expansion of said bulb releasing said plunger from a cocked position, and said powder-tray having apertures for the introduction of an extremity of 55 said powder-exploding apparatus and said clamping device.

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