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PATENT SPECIFICATION

379,501

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PROVISIONAL SPECIFICATION.

Improvements in and relating to Photographic Cameras.

We, HARRY COVILL, 4, Edith Road, Southend-on-Sea, Essex, and HARRY STEWARD, 13, Surbiton Road, Southend-on-Sea, Essex, both British Subjects, do hereby declare the nature of this invention to be as follows:—

This invention relates to an improvement for a photographic camera designed as an automatic pistol or hand-gun capable of taking any desired number of pictures without reloading and capable of being used in the manner of a pistol that sighting takes effect by bringing the pistol in line with the object to be photographed and the eye.

The object of this our invention is to provide an apparatus shaped as a pistol or handgun automatically worked by depression of the trigger to take any desired number of photographs singly, the whole capable of being easily handled and carrying film for 25, 50 or any number of pictures also of being carried in any ordinary pocket or handbag and will not require an ordinary view finder as the camera would be used and sighted as an automatic pistol or revolver.

According to this our invention, we propose a body designed in shape as an automatic pistol and comprising of a box with a lid having an open mouth piece for the barrel, this barrel is fitted with a lens and in the handle or body are contained the wheels, guides, spools, shutter and springs.

The working is effected by depression of the trigger which releases the shutter and automatically by arrangement of the springs uncovers and covers the film and is in position for the next release, the further pressure of the trigger, having, a spring arm attached on the inner end of which is a tooth or ratchet, then passes

the said tooth over a small wheel, when by release of the trigger enables the tooth to catch the cogs of the wheel and pull it round, the amount of pull being adjusted by desired number of teeth and length of ratchet spring, this being adjustable, the reverse motion can be had by placing the trigger spring with tooth reversed under the wheel and thus obtaining a pushing movement to the wheel, this small wheel is geared to the axles for carrying the film spools of which there are two, one holding the new film and one to carry the used film, at the back of the pistol to be placed a red glass eye piece enabling the user to see when film is finished. The two spools are mounted on two axles and are removable and also daylight loading.

The working of this invention is effected by pressure of the trigger which opens and closes the shutter thus exposing the film for photography then winds the film from the unused to the used spool and when indicator denotes the film of pictures are completed, the cover can be removed and new film spool inserted in place of the completed one.

In construction the several parts can be made from metal, plate, bakelite, ebonite or other rigid materials with wheels, springs, and fitments of metal rubber fibre or other moulded or casted or stamped materials and lens and other parts of such materials as are generally in use.

We do not bind ourselves to any particular size or shape of hand-gun or pistol.

Dated the 17th day of August, 1931.

H. COVILL,
For Self and Co-Applicant.

COMPLETE SPECIFICATION.

Improvements in and relating to Photographic Cameras.

We, HARRY COVILL, 4, Edith Road, Southend - on - Sea, and HARRY STEWARD, 13, Surbiton Road, Southend-
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on-Sea, Essex, both British Subjects, 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 improvements in photographic cameras of that kind which are particularly suited for taking snapshots.

10 The invention has for one of its objects to arrange the various parts of a photographic camera to enable the apparatus to be manipulated with greater ease and convenience than has been possible with known devices.

15 Another object of the invention is to arrange the parts of the apparatus so as to produce a photographic camera of novel and unique appearance and which can be manipulated in a less conspicuous manner than has been possible hitherto.

20 A further object of the invention is to arrange the various parts of the apparatus so that in external appearance a semblance to an automatic pistol or hand gun is obtained, the apparatus being operated by a trigger.

25 The invention consists in the arrangement of an improved photographic camera and is characterised in that externally it simulates an automatic pistol, the parts being so arranged that pressure on the trigger operates a photographic shutter mechanism and effects exposure of the light sensitive photographic film, and release of the trigger allows the film feeding mechanism to effect displacement of the film an image space under spring action so as to position unexposed film ready for the next exposure, the mechanism for the displacement of the film in some cases comprising a ratchet wheel operated by a detent displaced mechanically by articulated linkwork connected to the trigger which also may operate the photographic shutter through a pivoted plate and connecting link.

35 In order that the invention may be the better understood we will now proceed to describe the same in relation to the accompanying drawing, reference being had to the reference characters and figures marked thereon, like characters referring to like parts in the various figures in which:—

40 Figure 1 is a transverse sectional elevation of one form of camera constructed according to this invention;

45 Figure 2 is a sectional elevation of the camera illustrated in Figure 1, the section being taken generally on the line 2—2 of Figure 1;

50 Figure 3 is a front elevation of the camera illustrated in Figure 1;

55 Figure 4 is an elevation of Figure 1 taken on the line 4—4, the barrel being removed to enable the shutter mechanism

to be seen clearly; and

60 Figure 5 is a sectional elevation of Figure 1 taken on the line 5—5 and showing the partition to the film chamber.

65 The apparatus illustrated in the drawings is arranged to handle photographic film of a width of about three quarters of an inch and of such length as to enable a plurality of consecutive photographic exposures to be recorded without reloading, but obviously films of any size may be provided for as desired.

70 The apparatus comprises a casing *a* having covers *a*¹ and *a*² simulating the stock of an automatic pistol, a part *b* simulating the breech and a part *c* simulating the barrel.

75 The part *b* is provided with a cover *b*¹ to which, by means of screws or the like *c*¹, is attached the barrel part *c* containing a photographic lens *d* and diaphragm *e*, the whole construction being light tight to prevent damage to the film employed.

80 A partition *f* for supporting the film feed mechanism is arranged in the casing *a* and may be moulded integrally therewith or attached by screws such as *f*¹ to the lugs *f*².

85 The shutter mechanism may be of any kind which resets automatically after operation; as illustrated in the drawing the shutter mechanism comprises an apertured plate *g* superposed on an apertured plate *h*, both the plates *g* and *h* being free to move in guides *j* mounted on the cover *b*¹. The plate *h* is moved by means of the trigger *k* through the pivoted plate *l* and link *m* said plate *h* being connected temporarily to the plate *g* by means of a spring detent *g*¹ which engages with a projection *h*¹ on the plate *h*. When the plates *g* and *h* have been moved downwards a predetermined distance by the trigger *k* the bevelled end *g*² of the detent *g*¹ contacts with an abutment *g*³ and is displaced thereby sufficiently to release the projection *h*¹ and permit of the plate *g* being returned smartly to its starting position by means of the spring *n* which is anchored at *n*¹ to a fixed part, exposure being effected when the apertures in the several plates register. On release of the trigger *k* the plate *h* is moved upwards either by the spring *o* through the trigger mechanism or by a separate spring provided for the purpose until the projection *h*¹ is engaged again by the detent *g*¹.

90 The feed of the film, an image space at each operation, is effected after exposure on the return movement of the trigger *k*, under the influence of the spring *o*. To this end, the trigger *k*, through the intermediation of the part *p*,

95 100 105 110 115 120 125 130

lever g pivoted at q^1 and link r , rocks a plate s about its pivot s^1 and thus operates a ratchet wheel t by means of the spring detent t^1 which engages with the teeth t^2 of the said ratchet wheel in one direction. The ratchet wheel t is attached to a spur wheel u engaging with a pinion v on the spindle v^1 which carries and rotates the spool v^2 upon which the exposed film is wound after exposure; backward rotation of the wheel t being prevented by the detent t^2 .

The pivot s^1 for the plate s and the gear wheel u together with the ratchet wheel t associated therewith and the pivot q^1 for the lever g are mounted on the partition f in proper relation to the part p operated by the trigger k .

The supply of unexposed film is contained on the spool w arranged in the upper part of the casing a , said spool w being mounted on a spindle w^1 which is attached at one end to the partition f and passes through the cover a^2 at the other end, a thumb nut w^2 or the like being provided to retain the cover a^2 in place.

To prevent undue variation in the length of film fed at each operation the diameter of the spools is made comparatively large and the number of convolutions of the film is limited.

To prepare the apparatus for use the cover a^2 is removed; a spool w of unexposed film is arranged in place; the end of the film is passed between the guide blade x and the plate y , which latter is provided with an opening y^1 , and connected to the spool v^2 ; and the cover a^2 is replaced and is secured by the thumb nut w^2 .

In use, the apparatus is held in the hand and sighted in the same manner as an automatic pistol, the foresight z being employed to enable the camera to be directed on the view to be photographed and the trigger k is pressed thereby

operating the shutter mechanism through the plate l , the film being displaced an image space when the trigger k is released.

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

1. An improved photographic camera characterised in that externally it simulates an automatic pistol, the parts being so arranged that pressure on the trigger operates a photographic shutter mechanism and effects exposure of the light sensitive photographic film and release of the trigger allows the film feeding mechanism to effect displacement of the film an image space under spring action so as to position unexposed film ready for the next exposure, substantially as described.

2. An improved photographic camera as claimed in claim 1, characterised in that the feeding of the exposed film is effected on the return movement of the trigger under spring action by means of a ratchet wheel operated by a detent displaced mechanically by articulated link-work, substantially as described.

3. An improved photographic camera as claimed in claims 1 and 2, characterised in that the photographic shutter mechanism is operated by the trigger through a pivoted plate and connecting link, substantially as described.

4. An improved photographic camera externally simulating an automatic pistol arranged and constructed substantially as described and illustrated in the accompanying drawing.

Dated this 10th day of May, 1932.

CHAS. J. R. BULLOUGH,
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Lonsdale Chambers,
27, Chancery Lane, W.C.2,
Agent for the Applicants.

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

