G. A. ROBERDS.

CAMERA ATTACHMENT.

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1,069,293.

Patented Aug. 5, 1913.

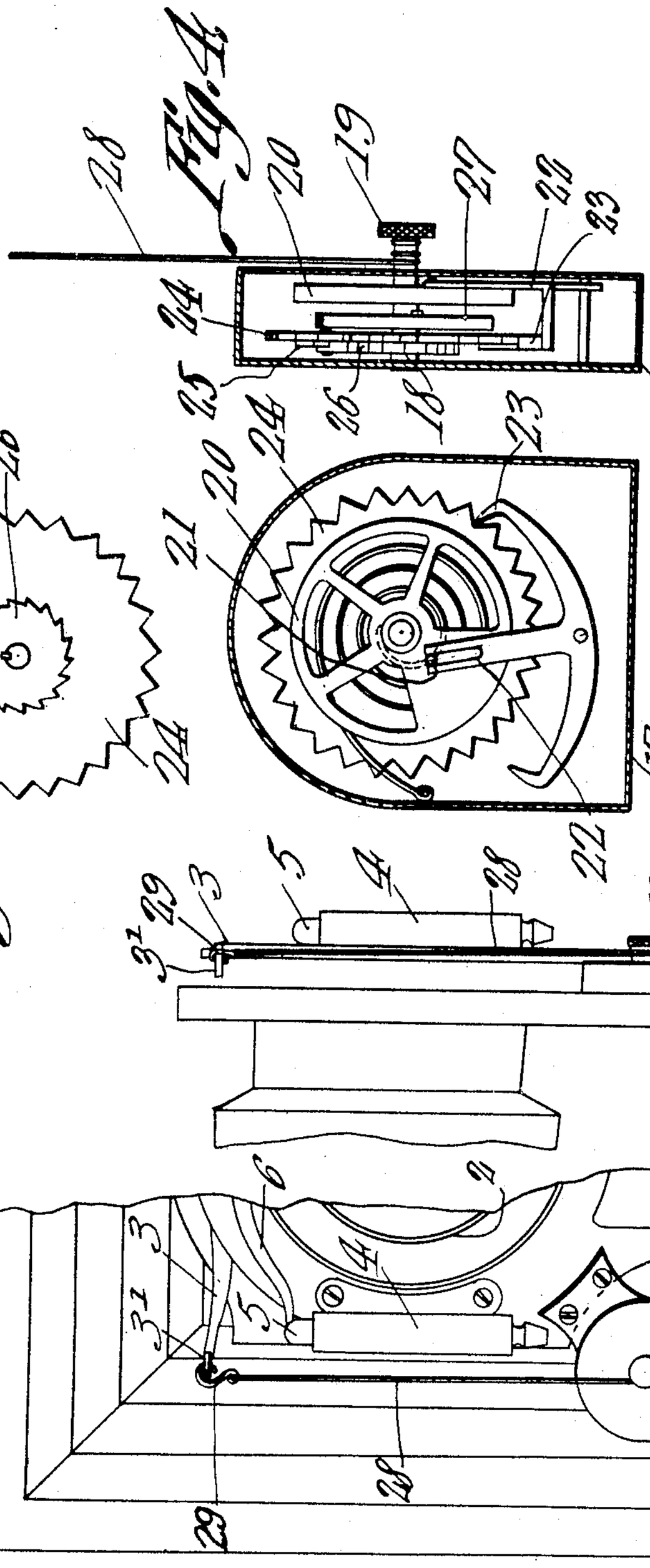


Fig. 4.

Fig. 3.

Fig. 2.

Fig. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

GARFIELD A. ROBERDS, OF OLATHE, KANSAS, ASSIGNOR OF ONE-HALF TO JOHN W. BREYFOGLE, OF OLATHE, KANSAS.

CAMERA ATTACHMENT.

1,069,293. Specification of Letters Patent. Patented Aug. 5, 1913.

Application filed January 23, 1911. Serial No. 604,171.

To all whom it may concern:

Be it known that I, GARFIELD A. ROBERDS, a citizen of the United States, residing at Olathe, in the county of Johnson and State of Kansas, have invented a new and useful Camera Attachment, of which the following is a specification.

This invention relates to attachments for cameras and is more particularly a means for operating or actuating the shutter at a certain time desired by the operator, the purpose being to have a sufficient period of time elapse after the attachment has been placed in operation and prior to the exposure, to enable the operator to place himself in range of the lens before the operation of the shutter.

Another object of the invention is to provide an attachment of this character which, while in position upon the camera, will not in any way interfere with the ordinary operation thereof.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings two forms of the invention have been shown.

In said drawings, Figure 1 is a front elevation of a portion of a camera having the attachment thereon. Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is an enlarged vertical transverse section through the casing of the attachment. Fig. 4 is a vertical longitudinal section through said casing. Fig. 5 is a detail view of the forward ratchet mechanism which may be utilized in connection with said attachment.

Referring to the figures by characters of reference, 1 designates the front piece or slide of the camera carrying the usual lens tube 2. 3 designates the shutter lever such as ordinarily employed, the same being adapted to be released by air directed under pressure into the cylinder 4, motion being directed from a piston 5 in the cylinder and to the shutter mechanism, by means of a lever 6.

The parts thus far described do not constitute any part of the present invention but are the same as found upon ordinary types of cameras.

A casing 17 is adapted to be secured to the member 1 of the camera and has a shaft 18 journaled therein and projecting forwardly therefrom, there being a knob 19 upon the front end of the shaft and whereby it can be readily rotated. A balance wheel 20 is loosely mounted on the shaft and has an outstanding pin 21 engaging the forked end of an escapement lever 22. The pallet 23 movable with this lever coöperates with a scape wheel 24 loosely mounted on the shaft 18 and carrying a pawl 25. This pawl normally engages a ratchet wheel 26 keyed or otherwise secured to the shaft. A clock spring 27 is secured at one end to the shaft and at its other end to the casing 17. A cord or other flexible device such as indicated at 28 is secured, at one end, to the projecting portion of the shaft 18 and its other end has a hook 29 adapted to be placed in engagement with the finger piece 3′ of the lever 3.

In using this attachment, the shaft 18 is rotated by means of knob 19 so as to wind the spring 27 and the connection 28 is unwrapped from the shaft and hook 29 placed in engagement with lever 3, it being understood that this lever is first set. As soon as the knob 19 is released, the spring, which is secured at one end to the casing 17, will cause the ratchet wheel to transmit motion through pawl 25 to the scape wheel 24 and the rotation of the scape wheel will, of course, be retarded by the pallet 23 under control of the balance wheel 20. As the shaft 18 and scape wheel are thus rotated, the connection 28 will be wound upon the shaft, slowly pulling downwardly on the lever 3 until the shutter mechanism is released. It will be apparent of course that this mechanism can be so timed as to cause the actuation of the shutter after any desired period of time has elapsed, this adjustment being most readily effected by varying the length of the connection 28.

What is claimed is:—

The combination with shutter mechanism including a lever, of a housing, a shaft mounted for rotation therein and having one end portion projecting therefrom, a winding knob, upon the projecting end of the shaft a flexible element connected to and adapted

to be wound upon said projecting end, means upon said element for detachably engaging one end of the lever, a spring wound about the shaft and connected at its ends to the shaft and casing respectively, said spring being adapted to be placed under stress when the flexible element is unwound from the shaft, a scape wheel secured to the shaft, a balance wheel loosely mounted on the shaft, a pin extending from one face of the balance wheel, an escapement lever fulcrumed adjacent the balance wheel and having a forked end engaged by the pin, and a pallet movable with the escapement lever and coöperating with the scape wheel to retard the rotation of said wheel during the unwinding of the spring and the winding of the flexible element.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GARFIELD A. ROBERDS.

Witnesses:
CHAS. M. NORRIS,
A. R. MACOUBRIE.