(No Model.)

C. E. PATTERSON.

COIN OPERATED STEREOSCOPE.

No. 405,321. Patented June 18, 1889.

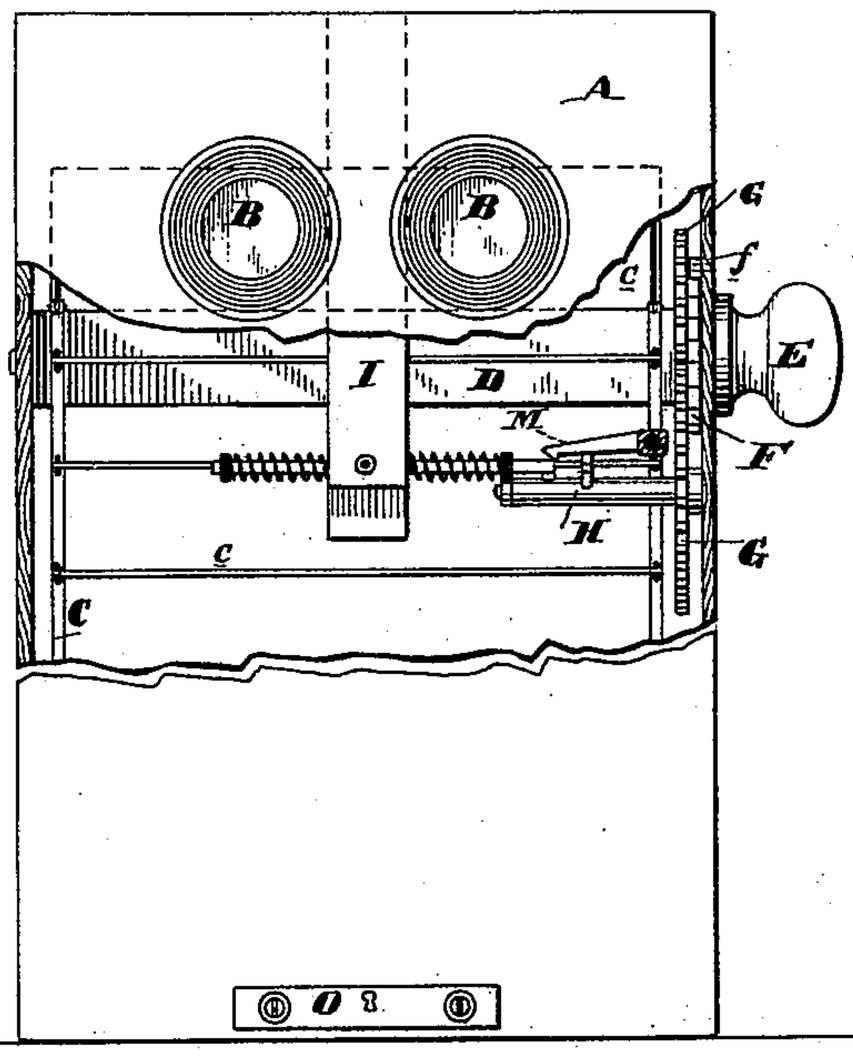

FIG. 1

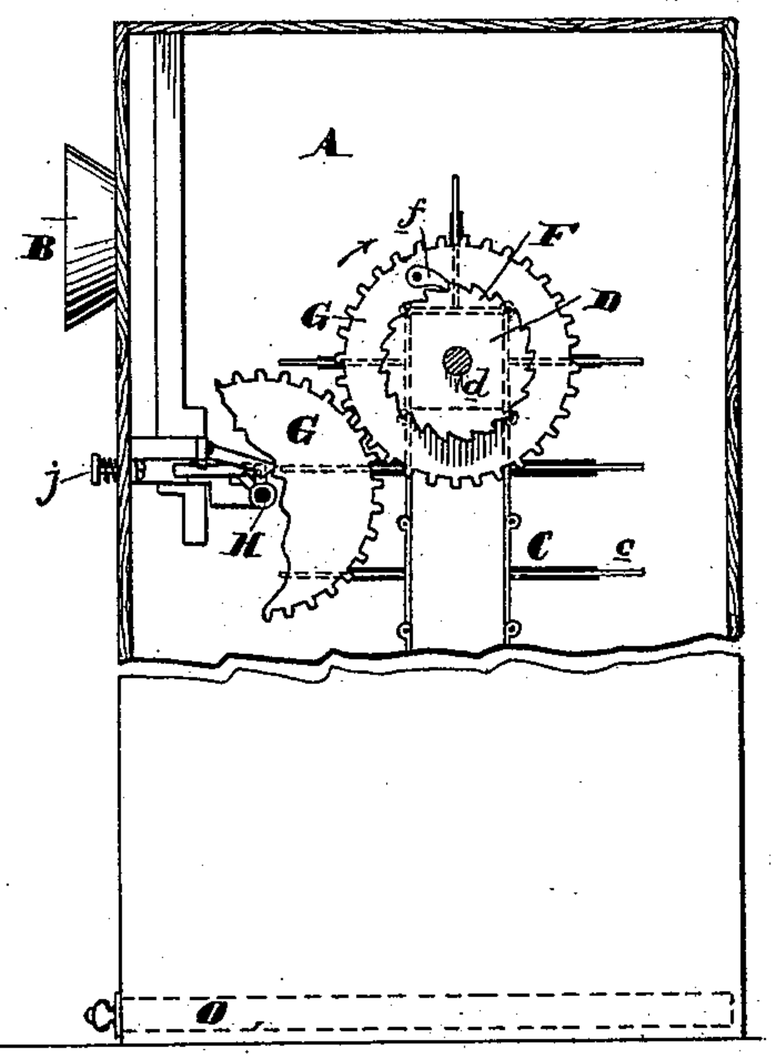

FIG. 2

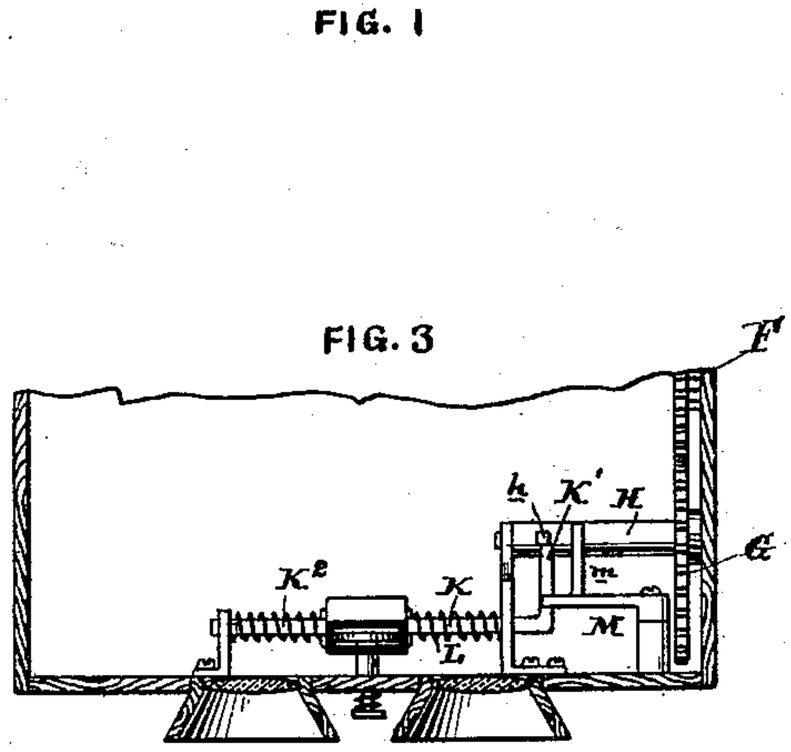

FIG. 3

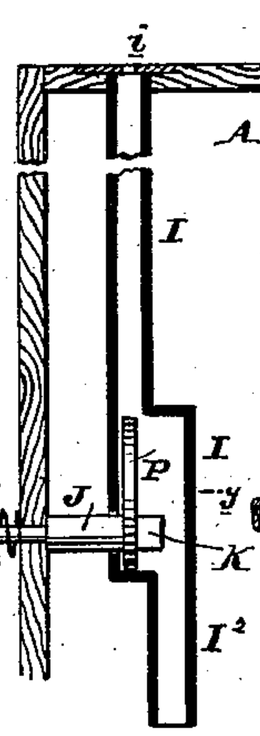

FIG. 4

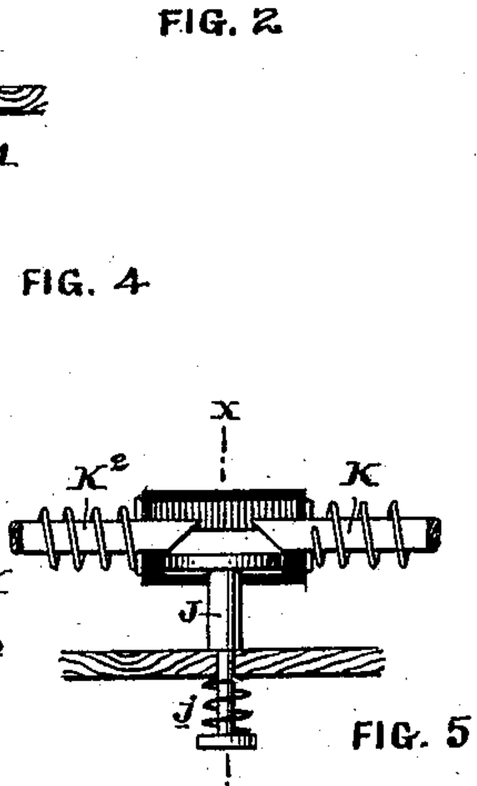

FIG. 5

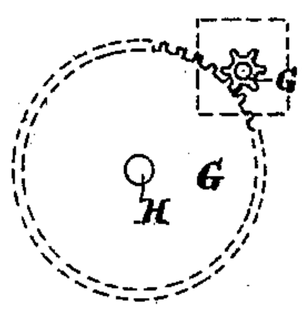

FIG. 7.

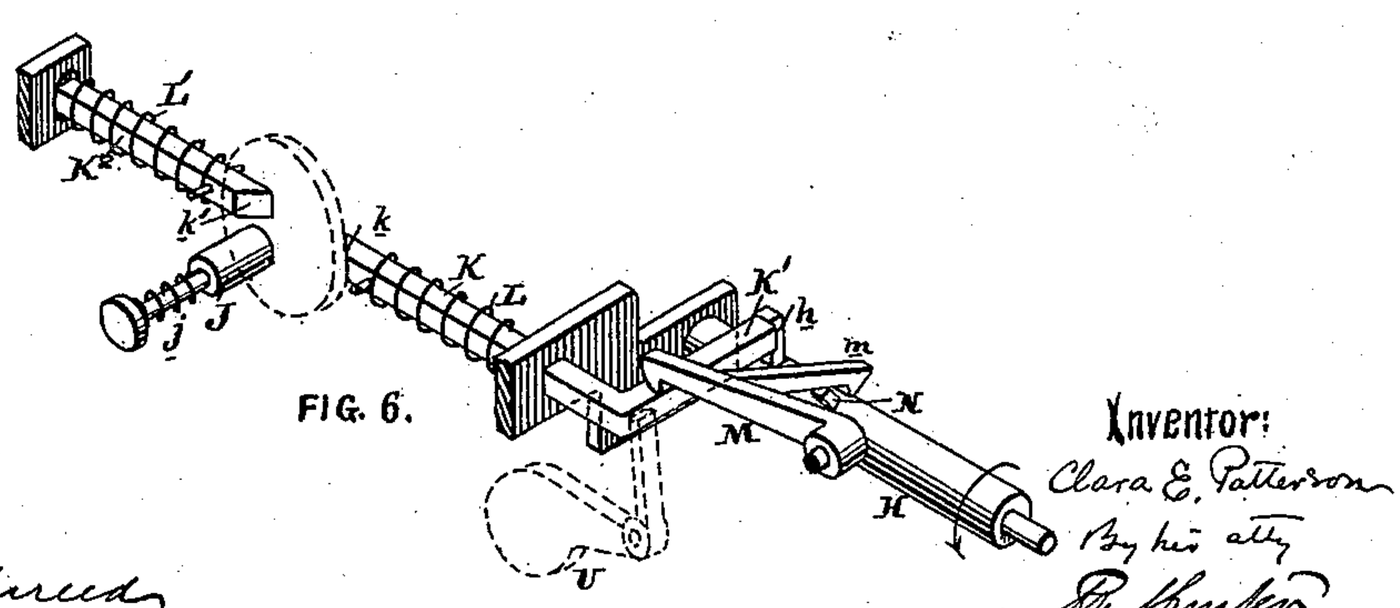

FIG. 6.

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UNITED STATES PATENT OFFICE.

CLARA E. PATTERSON, OF NEW YORK, N. Y.

COIN-OPERATED STEREOSCOPE.

SPECIFICATION forming part of Letters Patent No. 405,321, dated June 18, 1889.

Application filed February 10, 1888. Serial No. 263,607. (No model.)

To all whom it may concern:

Be it known that I, CLARA E. PATTERSON, of the city, county, and State of New York, have invented an Improvement in Coin-Operated Locking Devices for Stereoscopes and Similar Apparatus, of which the following is a specification.

My invention has reference to coin-operated devices for stereoscopes and similar apparatus; and it consists of certain improvements which are fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

While my invention has particular bearing upon stereoscopes as known in the market, it is understood that it is adapted to any and all devices in which a handle is to be rotated by the person who is to receive an equivalent for the money deposited. The essential features, broadly considered, may be enumerated as a handle to operate something, which in a stereoscope is a chain of pictures, a locking device, substantially such as hereinafter set out, to prevent the rotation of the mechanism operated by the handle except when a coin is deposited, and devices described later on to automatically relock the mechanism after it has been given a predetermined number of movements by the handle.

To prevent the cheating of the machine by the deposit of buttons and other articles not legal tender, I employ a push-pin which forcibly pushes the coin between sliding bolts, whereby the power of the hand can put the lock out of action, and the size and strength of the coin, rather than its weight, are employed to insure the unlocking of the devices for operation.

In the drawings, Figure 1 is a front elevation of a stereoscope and locking device embodying the principles of my invention, having a portion of its outer casing or box removed. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of the coin-operated mechanism. Fig. 4 is a sectional view of the coin-guide and push-pin to one side of the line *x x* of Fig. 5, which is a cross-sectional view through the line *y y* of Fig. 4. Fig. 6 is a perspective view of the mechanism operated by the coin detached from the case, and Fig. 7 is a modification of the spur-gearing by which the rotation of the mechanism is governed.

A is a stereoscope-box provided with the sight-apertures B, which have the usual lenses.

C are the picture-holders, which I prefer to have mounted upon or in the form of an endless chain or band guided upon a drum D. The drum D is preferably square, and is rotated by a shaft *d*, to which it is attached, and which terminates in a handle E on the outside of the box. Each of the picture-holders C (of which there may be any number desired) is provided with a picture *c*, which are successively presented before the sight-aperture B upon rotating the drum D by means of the handle E. Normally, however, the drum D and endless chain cannot be rotated by the handle E because of the locking devices, hereinafter described, and it is not until a coin has been deposited in the box that the mechanism can be unlocked and the drum and endless chain rotated by the handle E.

F is a ratchet-wheel secured to the drum D and upon its shaft *d*, and *f* is a locking-pawl therefor to prevent backward movement.

G are spur-gearing meshing together, one of which is mounted on the drum-shaft *d* and the other upon the shaft H. This shaft H is located within the frame of the box, journaled in a support or frame-work within it, and is provided with a pin or projection *h*, which is adapted to be engaged by a locking-bolt.

K is the locking-bolt, supported in any suitable manner within the box and having a beveled or tapering end *k*. This locking-bolt K has an angular end K′, which is normally adapted to rest against the projection *h* on the shaft H. K^2 is a rod or bolt similarly provided with a tapering end *k′*. These two bolts K and K^2 are loosely supported in their frames, so as to admit of lateral reciprocation.

L L′ are springs to normally keep the bolts in place with their beveled ends *k k′* at a given distance from each other.

M is a latch-hook pivoted by a pin to the box A or otherwise, as desired, and is adapted to catch the end K′ when it is forced beneath it. This latch-hook M is provided with an

arm *m*, extending from its side and adapted to be struck and lifted by a pin N upon the shaft H.

J is a push-pin having a spring *j* and located in the box A in front of the bolts K and K² and between their beveled ends *k k'*.

I is the coin-guide tube, having a slot or coin-aperture *i* to receive the coin of the exact size. This tube I extends downward through the box A, and is provided with openings through which the tapered ends *k k'* of the bolts K and K² and the end of the push-pin J may enter. At this point it preferably has a slight bend or elbow.

In operation the coin is dropped through the aperture *i*, and, falling through the tube I, is caught between the ends *k k'* of the bolts K and K² upon the elbow or bend in the tube. If the pin J is now pushed in, the coin will be forced between these ends *k k'*, which will thus be forced apart. This will push the end K' away from the projection *h*. The latch-hook M now catches the end K' and holds the bolt K back. The handle E may then be rotated, and the pictures will be presented in succession to the eye; but when the shaft H has made one complete revolution the latch-pin N strikes the arm *m*, lifting the latch-hook M and freeing the bolt K, which, by virtue of the spring L, will be drawn back, and the end K' will engage again with the projection *h*, and the apparatus will be relocked.

O is a drawer to receive the coins.

It is evident in this construction that the springs L might be replaced by a weighted lever, as shown in dotted lines in Fig. 6.

The number of pictures presented to the eye upon each revolution of the shaft H may of course be varied by changing the relative sizes of the spur-gears G, as illustrated in Figs. 2 and 7.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rotating shaft having a projection, a tube or coin-passage, a bolt to normally hold said projection and shaft from rotating, said bolt extending or projecting into the tube in the path of the coin, whereby the coin in passing through the tube moves said bolt and releases the shaft, allowing it to be rotated, a latch to hold said bolt away from the shaft projection, and a second projection carried by the shaft to trip the latch and release the bolt.

2. In a stereoscope, the combination of a picture-holder provided with a series of pictures, a rotating shaft to move the picture-holder, a handle to rotate said shaft and picture-holder to move the pictures successively before the sight-aperture, a projection upon said shaft, a coin-receiver provided with an aperture and terminating in a support, a push-pin to push the coin from one position without turning it over, and a bolt to prevent the rotation of the shaft and picture-holder projecting in the path of the coin and operated by it, when pushed, to release the projection on the shaft and allow the picture-holder to be rotated by the handle to cause the pictures to be moved successively before the sight-apertures.

3. In a stereoscope, the combination of a picure-holder provided with a series of pictures, a handle and shaft to rotate said picture-holder to move the pictures successively before the sight-aperture, a rotating shaft moved by the rotation of the picture-holder, gearing between the two shafts, a bolt to prevent the rotation of said shaft, and through it the picture-holder, a coin-receiver provided with an aperture and terminating in a support, a push-pin to push the coin from one position to another, said bolt being arranged in the path of the coin and operated by it, when pushed, to release the projection on the shaft and allow the gearing and picture-holder to be rotated by the handle to move the pictures successively before the sight-apertures.

4. In a stereoscope, the combination of a picture-holder provided with a series of pictures, a shaft by which said picture-holder is rotated, having a projection, a handle to rotate said shaft, a coin-receiver provided with an aperture and terminating in a support, a push-pin to push the coin from one position to another, a locking-bolt to prevent the rotation of said shaft and picture-holder arranged in the path of the coin and operated by it, when pushed back, to release the projection on the shaft and allow it and the picture-holder to be rotated by the handle to cause the pictures to be moved successively before the sight-apertures, a latch to hold the locking-bolt open as soon as operated to unlock the picture-holder, and a latch-releasing projection upon the shaft to automatically unlatch the bolt and allow it to reset itself to prevent further rotation of the shaft and the picture-holder after a given number of pictures have been presented to view.

5. In a stereoscope, the combination of a picture-holder provided with a series of pictures, a shaft by which said picture-holder is rotated, having a projection, a handle to rotate said shaft, a coin-guide provided with an aperture to receive the coin, a locking-bolt to prevent the movement of the shaft and picture-holder extending into the path of the coin, and actuated thereby in its passage, whereby the picture-holder may be turned to present the pictures in succession before the sight-apertures during the passage of the coin through the guide into the coin-receptacle within the case of the stereoscope.

6. In a stereoscope, the combination of a picture-holder provided with a series of pictures, a shaft by which said picture-holder is rotated, having a projection, a handle to rotate said shaft, a coin-guide provided with an aperture to receive the coin, a locking-bolt to prevent the movement of the shaft and picture-holder extending into the path of the coin actuated thereby in its passage, whereby

the picture-holder may be turned to present the pictures in succession before the sight-apertures during the passage of the coin through the guide into the coin-receptacle within the case of the stereoscope, a latch to hold said locking-bolt open, and a trip controlled by the rotating shaft to operate the latch and reset the bolt for actuation by the next coin deposited.

7. The combination of the handle E, shaft H, having projection *h*, connecting-gearing G, locking-bolts K and K^2, having tapered or beveled ends *k k'*, spring L, or its equivalent, to keep said locking-bolts normally in one position, a coin-guide, and a push-pin J, substantially as and for the purpose specified.

8. The combination of the handle E, shaft H, having projection *h* and pin N, connecting-gearing G, locking-bolts K and K^2, having tapered or beveled ends *k k'*, spring L, or its equivalent, to keep said locking-bolts normally in one position, a catch M, having arm *m*, for securing the lock out of reach of the projection *h*, and in which the pin N acts on the arm *m* to unlatch the lock after the shaft H has made a given movement, a coin-guide, and a push-pin J, substantially as and for the purpose specified.

9. The combination of the handle E, shaft H, having projection *h*, connecting-gearing G, lock K, having a tapered or beveled end *k*, spring L, or its equivalent, to keep said lock normally in one position, a coin-guide, a push-pin J, and the pawl and ratchet *f* F, to prevent the shaft H rotating backward.

10. In a stereoscope, the combination of a picture-holder provided with a series of pictures, a rotary shaft to move said picture-holder, a coin-receiving tube provided with an aperture to receive the coin, a bolt to normally lock said rotary shaft against rotation and actuated by the coin in its passage to the receptacle to unlock said rotary shaft and allow its rotation in moving the pictures in succession before the sight-apertures, and an automatic relocking mechanism, substantially as described, controlled by the movement of the picture-holder to relock said rotary shaft after a given number of pictures have been moved before the sight-apertures.

In testimony of which invention I hereunto set my hand.

CLARA E. PATTERSON.

Witnesses:

ERNEST HOWARD HUNTER,

RICHD. S. CHILD, Jr.