

(No Model.)

2 Sheets—Sheet 1.

H. M. WILSON.
COIN OPERATED OPERA GLASSES.

No. 461,558.

Patented Oct. 20, 1891.

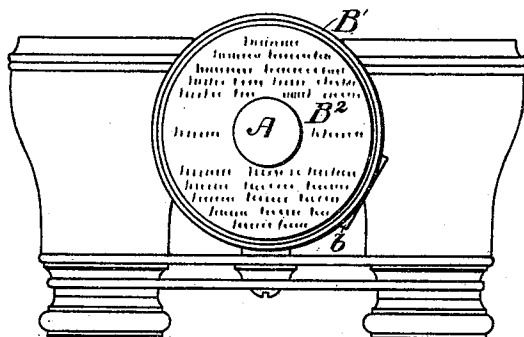


Fig. 1.

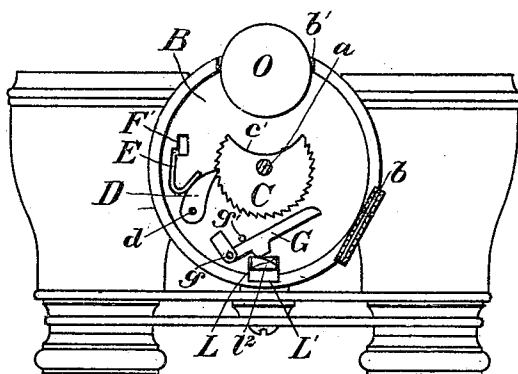


Fig. 2.

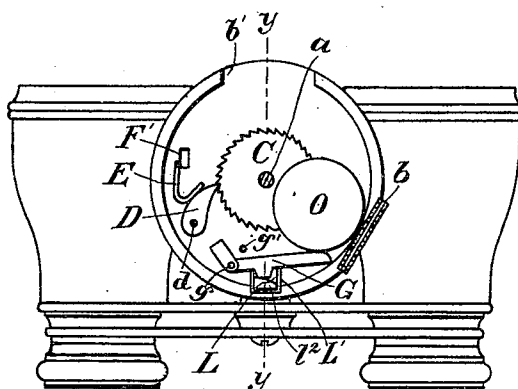


Fig. 3.

Witnesses

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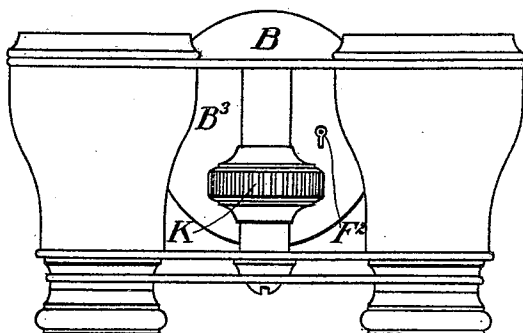


Fig. 4.

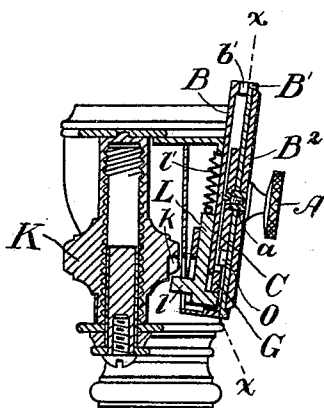


Fig. 5.

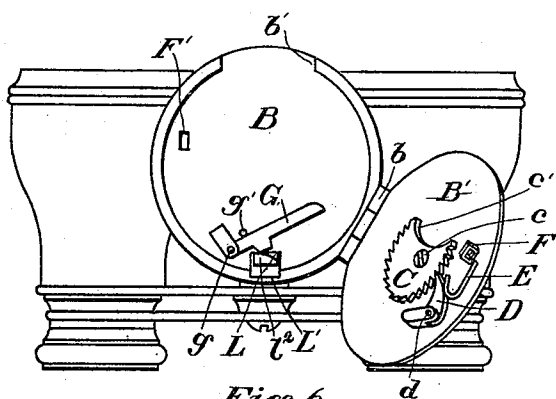


Fig. 6.

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UNITED STATES PATENT OFFICE.

HORACE M. WILSON, OF CAMBRIDGE, ASSIGNOR OF ONE-THIRD TO WM. B. H. DOWSE, OF NEWTON, MASSACHUSETTS.

COIN-OPERATED OPERA-GLASSES.

SPECIFICATION forming part of Letters Patent No. 461,558, dated October 20, 1891.

Application filed January 29, 1891. Serial No. 379,505. (No model.)

To all whom it may concern:

Be it known that I, HORACE M. WILSON, a citizen of the United States, residing at Cambridge, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Coin-Operated Opera-Glasses, of which the following is a full specification.

My invention consists of an improved opera-glass provided with an attachment so constructed that the focusing mechanism of the glass is normally kept locked, so that the glass cannot ordinarily be focused save by the insertion of a coin into a slot in the attachment, which coin serves the purpose of setting free or unlocking the focusing mechanism, so that the glass may then be focused. When once the coin has been inserted and the focusing mechanism unlocked by the said coin, the construction is preferably such that the glass may be screwed in and out at will in focusing until the coin has been removed from the attachment. Opera-glasses thus constructed are especially adapted for use in theaters and halls, being placed within reach of occupants of chairs, but requiring the insertion of a coin therein before they may be used.

Referring to the accompanying drawings, Figure 1 shows in front elevation an improved form of opera-glass embodying my invention. Fig. 2 is a sectional view showing the parts in position for locking the focusing mechanism, the section being taken in the plane of $x x$, Fig. 5. Fig. 3 is a similar view, but with parts in position corresponding to the unlocked or free condition of the focusing mechanism. Fig. 4 is a rear elevation of the opera-glass. Fig. 5 is a section in the plane of $y y$, Fig. 3; and Fig. 6 is a view looking into the coin attachment, the cover of which is open.

To the front of an ordinary opera-glass is secured the coin attachment, contained in a casing B, having the cover B', hinged at b thereto, as shown in Fig. 6.

L is a latch properly guided to move up and down in the inside of the casing B.

K is the milled head of the focusing-screw, by turning which the glass is focused in the usual manner. This milled head K is pro-

vided with the recess k , in which the inwardly-projecting locking portion l of the latch L is adapted to engage, the said latch being normally pressed upward into engagement with the said recess k when it is opposite the latch by means of a spring l' , arranged as shown in Fig. 5. When the latch is thus engaged with the recess in the focusing-screw head, the latter is firmly locked and cannot be turned. The arrangement is such that when the eye-glasses are screwed in as near the object-glasses as possible—i. e., when the glass is shut up—the recess k is directly above the locking portion l of the latch, which thus springs up into the recess and prevents the focusing-screw from being turned. In this position the glass is for practical purposes useless. The bottom of the casing B has the slit L' , in which the forwardly-projecting stop l^2 of the locking-latch L moves up and down.

C is a plate or disk provided with ratchet-teeth, which plate, as shown in the drawings, is adapted to turn on the inner surface of the cover, being secured by the screw c to the spindle a of the thumb-screw or knob A on the opposite side of the cover, so that the plate C turns with the knob. This ratchet-plate is cut out at c' to fit the curve of the coin which is to serve to unlock the focusing-screw.

b' is a slot of a size sufficient to admit the coin O into the casing.

D is a pawl, preferably pivoted to the inner side of the cover and engaging with the teeth on the ratchet-plate C, E being a spring which tends to press said pawl constantly against the ratchet-plate.

G is a lever pivoted at g to the casing and arranged to press upon the stop l^2 of the latch L, as shown in Figs. 2 and 3, g' being a pin which limits the upward movement of the lever.

The cover B is normally kept closed and locked, being ordinarily opened only for the purpose of removing the coin from the casing after it has served its purpose. The back plate B³ is provided with the key-hole F², into which the key is inserted which unlocks the cover.

F is the staple on the inside of the cover,

which passes through the slit F' when the cover is closed, and into which the bolt of the lock which is operated through the key-hole F² slides. This cover-lock may be of any desired construction and placed in any position.

I preferably provide the front or outer face of the cover with a plate B², which contains directions as to the use of the glass and any advertising matter that may be desired thereon. As herein shown, the plate B² is of glass and covers a card on which the directions or other printed matter are arranged.

The operation of the device is as follows: Starting with the focusing-screw of the glass locked and the cover B' closed down over the casing, the parts being in position indicated by Fig. 2 of the drawings, with the ratchet-plate C in such a position that its curved seat or recess c' is directly beneath the coin-slot b', a coin O of proper denomination is inserted in the slot and drops down into the curved recess c'. The knob A is then turned, which moves the ratchet-plate C, and with it the coin O, into the position shown in Fig. 3. During this motion of the coin it engages with the outer end of the lever G, which it depresses, thus pushing down the stop l² of the locking-latch L, to the bottom of the slit L'. This moves the locking portion l out of the recess k, (see Fig. 5,) thus setting free the focusing-screw and allowing the glass to be focused. The pawl D engaging with the teeth of the ratchet-plate prevents said plate from being turned backward by the knob A, and when once the coin has been turned into the position shown in Fig. 3 it remains there until the cover of the casing is opened and the coin is taken out. While the coin is in this position, Fig. 3, the glass may be used like an ordinary opera-glass and be screwed in or out at will. When the cover is opened and the coin removed, the ratchet-plate is preferably set with the curved seat c' immediately under the slot b' before the cover is again closed and locked, being thus ready for operation again. When the coin has been removed and the glass screwed in as far as it will go, the locking-latch will again spring up, with the locking portion l in engagement with the recess k in the head of the focusing-screw.

The lock herein shown for locking the focusing arrangement can, if desired, be op-

erated by the coin in a simpler manner by doing away with the lever G and allowing the coin as it is turned around to act directly upon the stop l² of the locking-latch L.

I claim—

1. An opera-glass having a recessed focusing-screw head, in combination with an attachment provided with a sliding locking-latch engaging with the recess in the head of the focusing-screw and having suitable coin-receiving handle-operated mechanism, whereby when a coin is inserted turning the handle withdraws the latch from engagement with said recess, substantially as and for the purposes described.

2. An opera-glass having a recessed focusing-screw head, in combination with an attachment containing a spring locking-latch engaging with the recess in said screw-head, a revoluble plate provided with ratchet-teeth and having a coin-receiving seat, and a pawl engaging with said ratchet-teeth, whereby when a coin is seated in the plate and the plate is turned the focusing-screw is unlocked, substantially as described.

3. An opera-glass having a focusing-screw head provided with a recess, in combination with an attachment containing a spring locking-latch L, engaging with said recess and provided with a stop l², a plate C, provided with ratchet-teeth and having a coin-receiving seat c', a pawl D, engaging with said ratchet-teeth, a knob or handle A on the outside of the attachment, secured to said plate, whereby the same may be turned, and a lever G, engaging with said stop, all constructed, arranged, and operating substantially as and for the purposes described.

4. An opera-glass having a recessed focusing-screw head, a spring locking-latch engaging with said recess, and a revoluble handle-operated plate provided with a coin-receiving seat c', whereby when a coin rests in said seat and is turned with the plate the latch is moved out of engagement with the recessed screw-head, substantially as described.

In witness whereof I have hereunto set my hand.

HORACE M. WILSON.

Witnesses:

WM. B. H. DOWSE,

ALBERT E. LEACH.