No. 645,771. Patented Mar. 20, 1900.

O. WEISE.

COIN OPERATED TELESCOPE.

(Application filed June 6, 1899.)

(No Model.) 7 Sheets—Sheet 1.

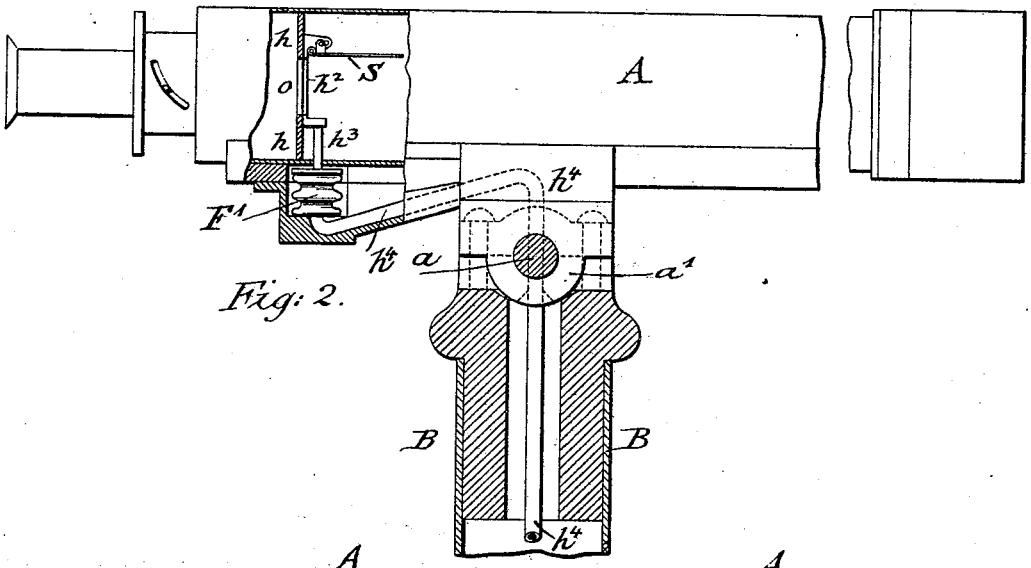

Fig. 2.

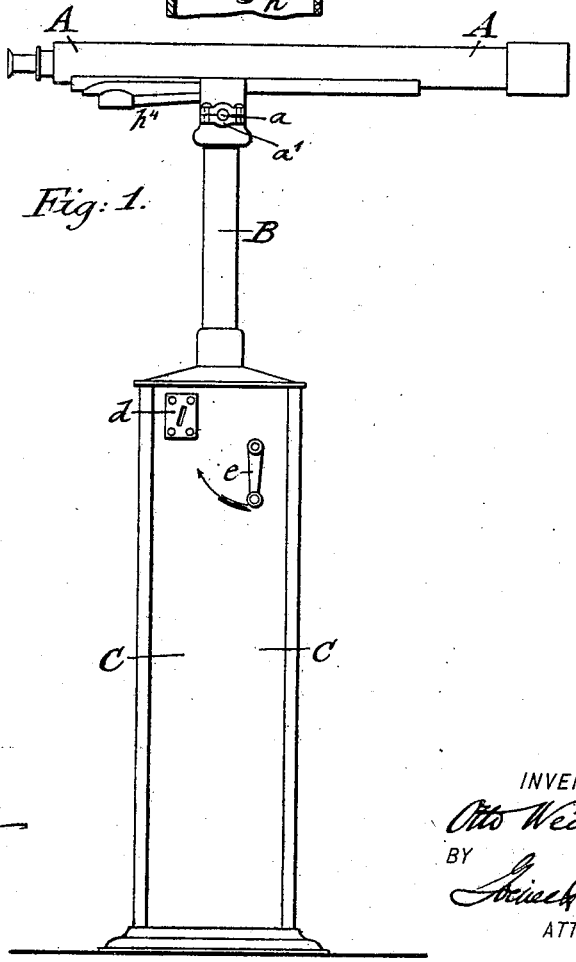

Fig. 1.

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Fig. 3.

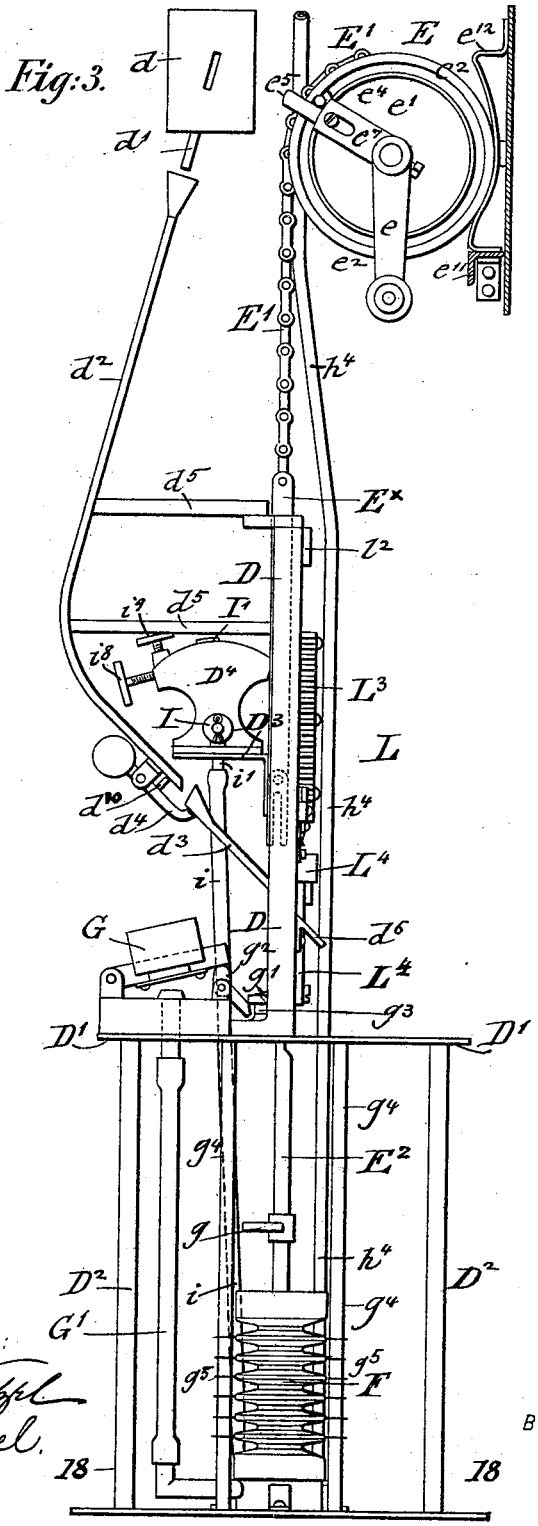

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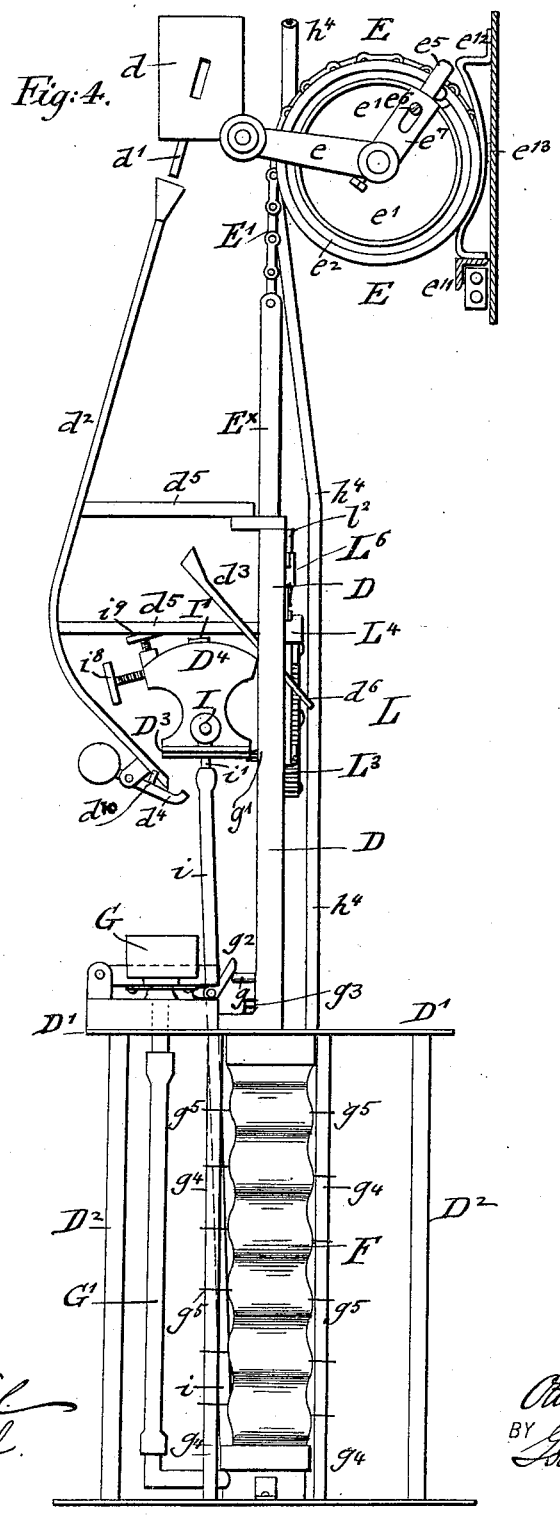
Fig. 4.



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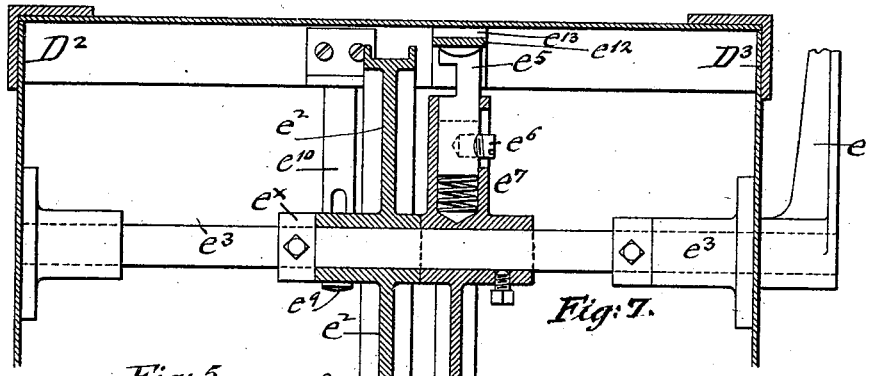


Fig: 7.

Fig: 5.

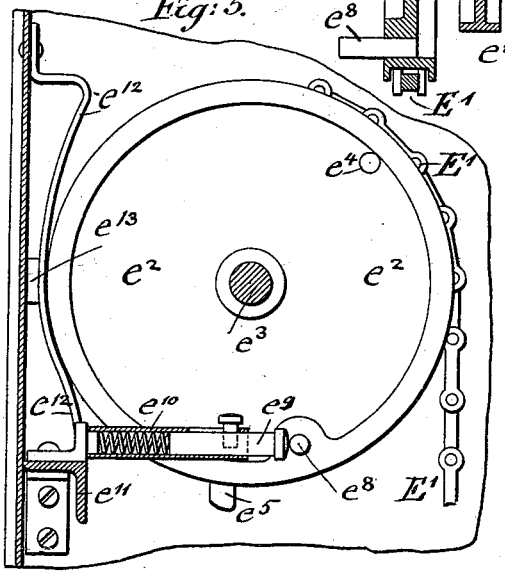
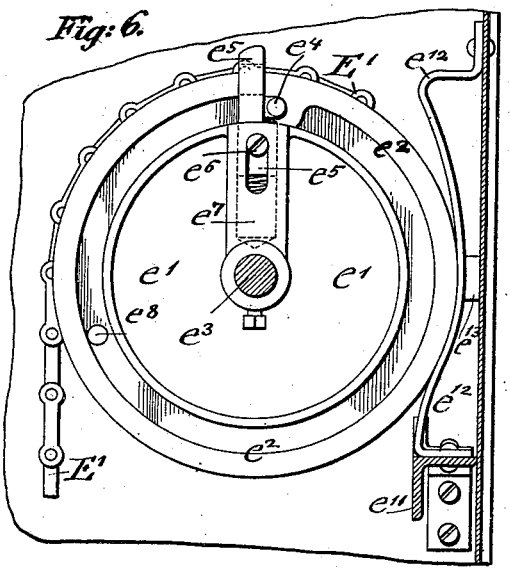


Fig: 6.



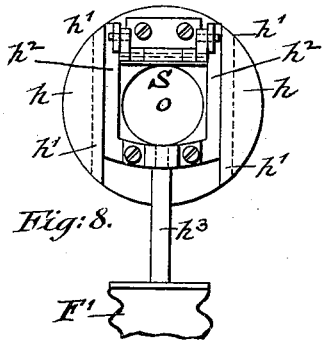


Fig: 8.

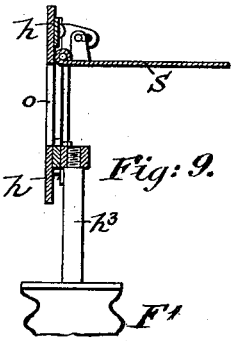


Fig: 9.

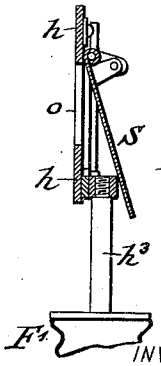


Fig: 10.

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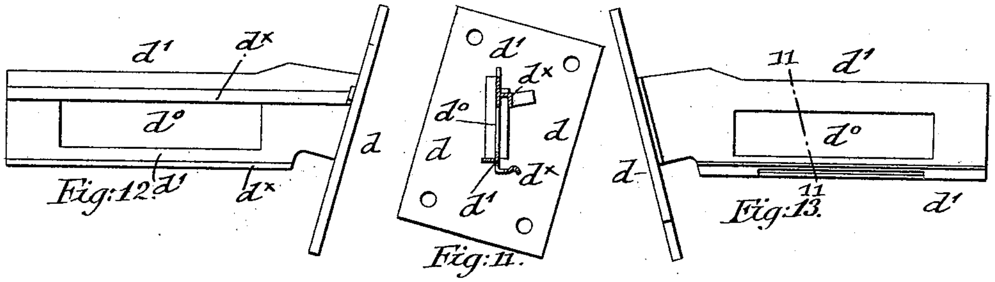

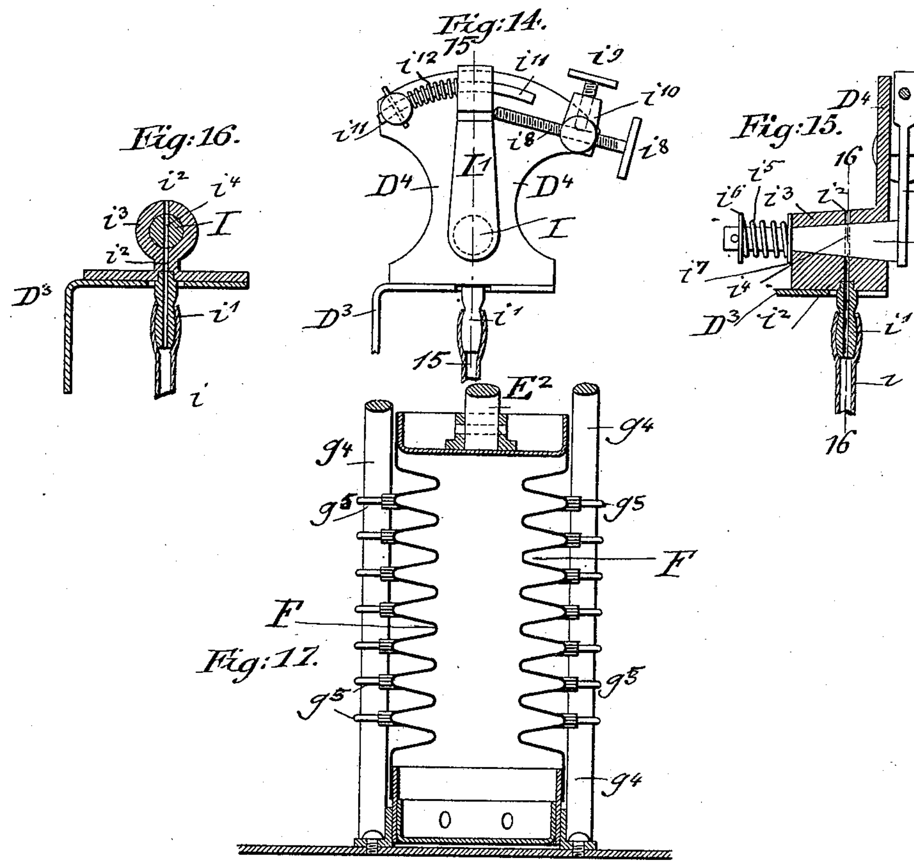

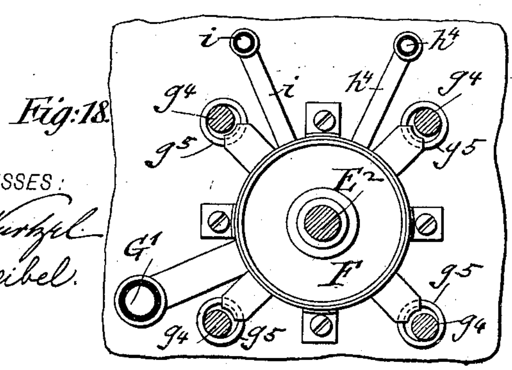

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COIN OPERATED TELESCOPE.

(Application filed June 6, 1899.)

(No Model.) 7 Sheets—Sheet 6.

Fig: 19.

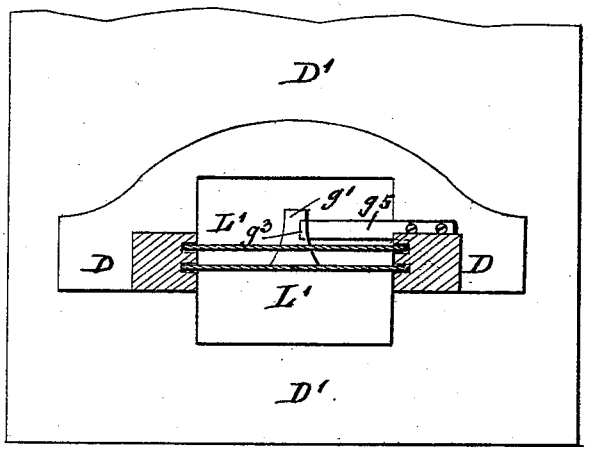
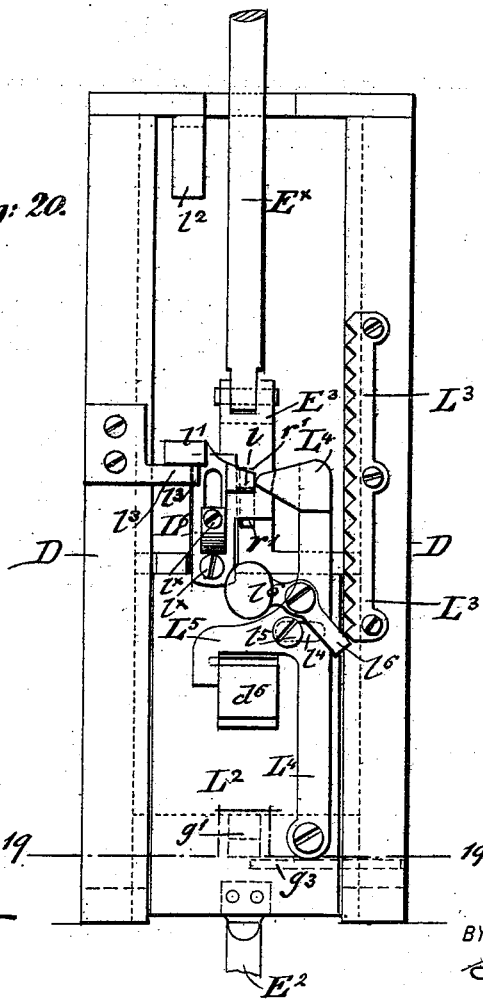


Fig: 20.



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No. 645,771. Patented Mar. 20, 1900.

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COIN OPERATED TELESCOPE.

(Application filed June 6, 1899.)

(No Model.) 7 Sheets—Sheet 7.

Fig: 21.

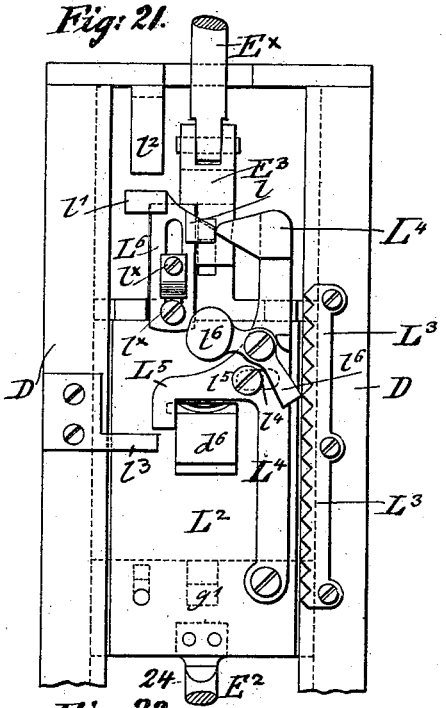


Fig: 22.

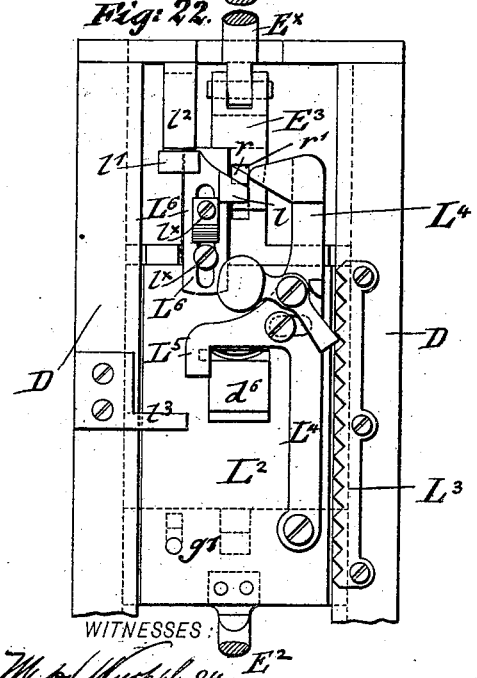


Fig: 23.

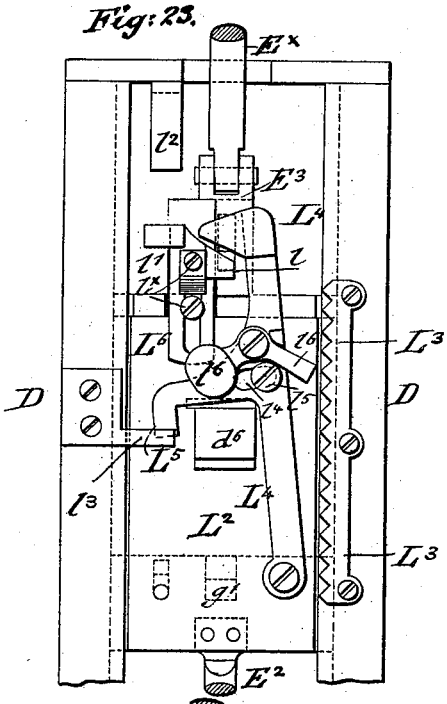
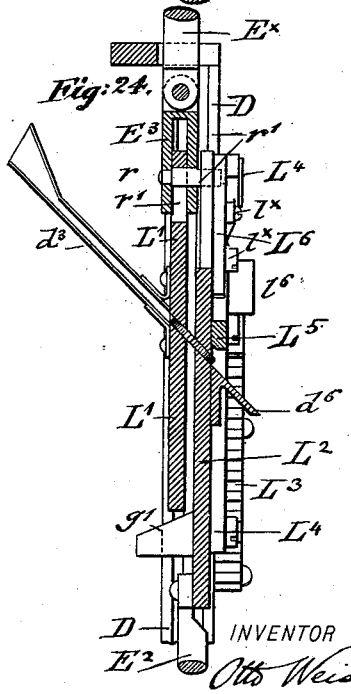


Fig: 24.



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UNITED STATES PATENT OFFICE.

OTTO WEISE, OF JERSEY CITY, NEW JERSEY.

COIN-OPERATED TELESCOPE.

SPECIFICATION forming part of Letters Patent No. 645,771, dated March 20, 1900.

Application filed June 6, 1899. Serial No. 719,523. (No model.)

To all whom it may concern:

Be it known that I, OTTO WEISE, a citizen of the United States, residing in Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Coin-Operated Telescopes, of which the following is a specification.

This invention relates to an improved telescope which on the dropping of a coin can be used for a certain predetermined length of time, the ocular being closed automatically on the termination of that time by the operating mechanism, so that the telescope is ready for the next user, it being designed for use at points on the sea-coast, towers, elevated points, mountains, &c.; and for this purpose the invention consists of a coin-operated telescope which comprises a telescope, a standard on which the same is mounted, a coin-operated releasing mechanism, a crank-operated mechanism for operating the releasing mechanism permitting the dropping of the coin, a bellows operated by said crank-operated mechanism, means connecting said bellows with a pneumatically-operated shutter in said telescope, and means for interrupting the pneumatic pressure on said shutter, so as to drop it and terminate the use of the telescope.

The invention consists, further, of certain details of construction, such as the coin-operated latch mechanism, means for regulating the escape of the air, and other details of construction and combinations of parts, which will be more fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of my improved coin-operated telescope and its supporting-stand. Fig. 2 is a side elevation, partly in vertical section, of the telescope proper and the pneumatically-operated shutter located in the same. Figs. 3 and 4 are side elevations of the coin-operated releasing mechanism and the pneumatic shutter-operating mechanism, with the inclosing casing removed and drawn on a larger scale, said mechanism being shown, respectively, in a position of rest and in a position for holding the shutter in open position. Figs. 5 and 6 are sectional side elevations of the crank-operated mechanism for lifting the bellows and opening the shutter in the telescope. Fig. 7 is a horizontal section through the crank mechanism. Fig. 8 is a detail rear elevation of the pneumatically-operated shutter in the telescope. Figs. 9 and 10 are vertical transverse sections of the same, showing it respectively in open and closed position. Figs. 11, 12, and 13 are details of the guide-plate of the coin-dropping chute. Fig. 14 is a detail side elevation of the air-escape valve. Fig. 15 is a vertical transverse section on line 15 15, Fig. 14. Fig. 16 is a detail vertical section through the air-escape valve on line 16 16, Fig. 15. Fig. 17 is a vertical transverse section through the shutter-controlling bellows. Fig. 18 is a horizontal section on line 18 18, Fig. 3, drawn on a larger scale. Fig. 19 is a horizontal section of the releasing latch mechanism operated by the crank mechanism on line 19, Fig. 20. Fig. 20 is a detail elevation of the releasing latch mechanism, showing it in normal position. Figs. 21, 22, and 23 are different successive positions of the latch mechanism; and Fig. 24 is a detail vertical transverse section of said latch mechanism on line 24 24, Fig. 22.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a telescope of the usual approved construction. The main tube of the telescope A is supported by trunnions a in horizontal bearings a' at the upper end of a hollow standard B, which is again supported on an upright casing C of rectangular cross-section, in which the coin-operated parts of the telescope are located. The coin-operated parts serve for the purpose of opening a pneumatically-hinged shutter S, that is arranged in the main tube of the telescope A at the end containing the ocular, and consist of a coin-chute, a latch mechanism, the parts of which are coupled together by the coin conducted thereto, a crank mechanism by which said latch mechanism is operated after the coin is dropped, and a main bellows, which is quickly extended by the operation of the crank and latch mechanisms and slowly returned to its normally-collapsed position, said bellows actuating an auxiliary bellows, which holds the shutter in open posi-

tion while the main bellows is returning to its normal position and which closes the shutter on the collapse of the main bellows.

The coin-chute.—The coin-chute is shown in Figs. 4, 11, 12, and 13. It is arranged in the upper part of the casing C, which is provided with a slotted plate d for the dropping of the coin. This plate is provided with an inclined coin-guide d, which is arranged with guideways $d^{\times}$ at one side, that take up the coin dropped into the coin-slot of the plate d and then conduct it to the coin-tube d^2. The lower guideway $d^{\times}$ is provided with a slot through which smaller and thinner coins are dropped before they can pass onto the coin-tube d^2, the device being only operated by a coin of the proper size and thickness. Tin disks or other worthless tokens that may be tried for operating the device likewise drop through the slotted way $d^{\times}$ or through the opening d^9 in the coin-guide d'. As the coin-guide d' is placed at an incline to a perpendicular line, a smaller coin is also apt to tilt over the lower way, as it is not retained by the upper guideway. A coin of the required size—such as, for instance, a nickel—which fits exactly in the guideways, is retained and conducted by them to the coin-tube d^2. Below the coin-guide d' is arranged the enlarged upper end of the coin-guiding coin-tube d^2, which communicates with the upper enlarged end of a second coin-guiding tube d^3, the lower end of which is arranged in inclined position on one of the plates of the latch mechanism L, as shown in Figs. 3 and 24. To the under side of the lower end of the intermediate coin-tube d^2 is fulcrumed a weighted hook d^4, the end of which abuts against the upper end of the coin-tube d^3 when the same is in its normal position. The hook d^4 is provided with a pin d^{10}, which projects through an opening in the lower part of the coin-tube d^2 when the coin-tube d^3 is moved away from the hook d^4, so as to arrest any coin which may be dropped into the coin-chute while the shutter of the telescope is placed in open position. The coin is thus arrested by the pin d^{10} in the lower part of the coin-tube d^2 without producing any action of the operating mechanism. The coin-tube d^2 is supported by horizontal arms d^5, that extend from an upright guide-frame D, which is attached to a platform D', that is supported by angular uprights D^2, the lower ends of which are attached to the bottom of the casing C. The latch mechanism L is guided in ways of the frame D and operated by a crank mechanism E, which is connected by a chain E', composed of pivot-links, with a rod $E^{\times}$, attached to the upper end of one of the latch-plates, while the other latch-plate is connected by a rod E^2 with the top plate of the main bellows F, the bottom plate of which is permanently attached to the bottom of the casing C.

The crank mechanism.—The crank mechanism E is shown in Figs. 5, 6, and 7 and is composed of a crank e, that is arranged at the outside of the casing C, as shown in Fig. 1, and of two pulleys e' and e^2, one of which is keyed to the crank-shaft e^3, while the other is loose thereon. The hubs of the pulleys e' e^2 abut against each other, one being located in front of the other. The hub of the pulley e^2 is retained on the shaft e^3 by the collar $e^{\times}$. The chain E' is attached to a point on the circumference of the loose pulley e^2 which carries a pin e^4, which projects sidewise into the path of a spring-actuated finger e^5, which is guided by means of a pin e^6 in a slotted radial socket e^7 on the pulley e'. A second pin e^8 projects at the opposite side of the pulley e^2 at some distance from the pin e^4 and serves to abut against a sliding and spring-actuated buffer-rod e^9, that is guided in a stationary socket e^{10}, attached to a supporting-bracket e^{11} on the side wall of the casing C. This buffer-rod e^{10} serves to arrest the pulley e^2 when the same is returned into normal position, so as to neutralize the sudden jars or concussions caused thereby. A stationary concave plate e^{12} is attached by its bent-over ends to the side wall of the casing C and supported at its middle position by a small block e^{13}, as shown in Figs. 5, 6, and 7. When the crank e is turned, the fixed pulley e' is turned with the same, its finger e^5 engaging the pin e^4 on the loose pulley e^2 and carrying it along, so that the latch-plates, which are coupled together by the coin delivered to them by the coin-chute, are raised by the action of the connecting-chain E' until the end of the projecting finger e^5 contacts with the concave plate e^{12} and is pushed back against the tension of its spring until a side recess near the outer end of the finger e^5 is placed in line with the pin e^4 of the pulley e^2 and permits said pin to pass through the recess and permit the return of the pulley e^2 by the weight of the latch mechanism until its pin e^8 is arrested by the cushioning-bolt e^9, as shown in Fig. 5.

The latch mechanism.—The latch mechanism L is shown in Figs. 19 to 24 and consists of two latch-plates L' L^2, which are guided in ways of the supporting-frame D. To one side of the frame D is attached a stationary rack-bar L^3. Both latch-plates L' L^2 are provided with slots, the inclined sides of which register with the lower inclined end of the coin-tube d^3. The latch-plate L^2 is provided with an inclined guide-plate d^6 below its slot, so that the coin held in the slots of the latch-plates L' L^2 can slide off over the plate when its function of coupling the latch-plates together has been accomplished. On the plate L^2 is arranged a pivoted latch L^4, which is provided with an angular arm L^5, that extends over the coin-slot in the plate L^2 and arrests the coin when the same is conducted from the coin-tube d^3 into the inclined slots in the latch-plates L' L^2, as shown in Fig. 21. When the coin is in this position in the latch-plates, the crank mechanism E is operated by turning the crank. This produces the simultane-

ous raising of the latch-plates as they are coupled together by the coin until a slotted and spring-pressed slide-plate L^6, which is guided on headed pins $l^\times$ of the latch-plate L′ and provided at one side with a nose l, that abuts against the head of the latch L^4, and at the other side with a heel l', abuts against a fixed stop l^2 on the upper end of the guide-frame and is then shifted in downward direction from the position shown in Fig. 20 to that shown in Fig. 23. The pivoted latch L^4 is provided with a slot l^4, by which it is guided along a stationary pin l^5 on the latch-plate L^2, said pin and slot limiting the tilting motion of the latch. A weighted pawl l^6 is pivoted to the latch L^4, said pawl engaging with the teeth of the rack L^3 on the frame D during the upward motion of the latch-plate L^2 when the coin is dropped from the same, but clearing the rack when the latch is in its inwardly-tilted position. Simultaneously with the depression of the slide-plate L^6 by the stop l^2 the crank mechanism is released and the chain E′ and rod $E^\times$ dropped instantly by gravity. The rod $E^\times$ is connected by a pivot-link E^3 and stud r with the upper slotted end of the latch-plate L′, and the stud r drops in the slot r' until it is arrested by the lower end of the same. During this time the latch-plates are coupled together by the coin and held in raised position on the guide-frame D by the pawl l^6, which engages one of the teeth of the rack L^3. The stud r projects beyond the link E^3 into the path of the recessed head of the latch L^4, which head abuts normally against the projecting end of the stud r' and the nose. As soon as the head of the latch L^4 is released from the nose l by the shifting of the guide-plate L^6, as shown in Fig. 22, and as soon as the stud r is dropped to the lower end of the slot r' the head of the latch is released and the latter instantly tilted into the position shown in Fig. 23, so that its arm L^5 releases the coin, which is dropped along the deflecting-plate d^6 into the lower part of the casing C. Both latch-plates L′ L^2 commence then slowly to move in downward direction, as permitted by the gradual discharge of the air from the main bellows F, until the heel l' of the slide-plate L^6 is engaged by the lower stop l^3 on the guide-frame D, and shifted on its headed pins $l^\times$ in upward direction, so as to assume its normal position and move the latch L^4 sidewise, so that its arm L^5 extends again over the coin-slot of the latch-plate L^2, as shown in Fig. 20. The guide-frame D is of sufficient height to permit the lifting of the latch-plates, so as to produce the complete expansion of the main bellows F, so that when the return motion of the latch-plates commences the same is in its extreme condition of expansion. The connecting-rod E^2, as well as the lower end of the latch-plate L^2, is provided, respectively, with fingers g g', which serve to actuate, by means of a fulcrumed elbow-lever g^2, a weighted valve G, which closes or opens the upper end of an air-pipe G′, that communicates with the lower part of the bellows F, the lifting motion of the latch-plates producing, by the lower finger g, the tilting of the elbow-lever g^2 and the closing of the valve G, while the return motion of the latch-plates produces, by the upper finger g', the tilting of the elbow-lever g^2 in opposite direction and the opening of the weighted valve G, as shown, respectively, in Figs. 4 and 3, so as to restore thereby the atmospheric pressure in the collapsed bellows F. The finger g' on the latch-plate L^2 is simultaneously arrested by a stop g^5 on the platform D′, (shown in Figs. 19 and 20,) all the parts of the latch mechanism being then in their normal position of rest. The outer folds of the bellows are provided with guide-rings g^3, which are guided along upright rods g^4, that are supported by the platform D′ and bottom of the casing C, said guide-rings facilitating the easy motion of the bellows from its collapsed into its expanded position, and vice versa.

The shutter mechanism.—The shutter mechanism is shown in Fig. 2 and in detail in Figs. 8, 9, and 10. It consists of a stationary disk h in the main tube A of the telescope, which is provided with a central opening o in line with the ocular and with vertical guideways h' at both sides of the same for a sliding frame h^2, that is connected at its lower end by a rod h^3 with the upper end of the auxiliary bellows F′ and at its upper end by slotted lugs and pivots with lugs on the hinged shutter S. A tube h^4 extends from the lower end of the bellows F′ in downward direction through the pivotal connection of the telescope within the tubular standard B and then through the latter into the casing C and to the lower part of the main bellows, as shown in Figs. 2, 3, and 4. As soon as the expanded bellows F commences its downward motion, together with the latch mechanism, the air is forced from the main bellows F into the bellows F′, so as to expand the latter and lift the shutter into its horizontal or open position by the upward motion of the slide-frame h^2. The telescope can be used for the period of time that the shutter is held in open position by the bellows. As soon as the main bellows F is in collapsed position the shutter S is dropped, so as to close the opening o in the plate h by the collapse of the auxiliary bellows, the slide-frame h^2 being simultaneously returned into its lower position, as shown in Fig. 10, so as to terminate the period of time for which the telescope was in use by the dropping of one coin.

The air-regulating valve.—In connection with the main bellows F is used a valve which regulates the discharge of the air from the bellows and which controls thereby the length of time required for the collapse of the bellows and the time for which the shutter S is held open. This valve is shown in Fig. 3 and in detail in Figs. 14, 15, and 16. It is connected with the lower part of the main bel-

lows F by means of a flexible tube i, the upper end of which is applied to a nipple i', which communicates with a channel i^2 in the casing of the valve I. The valve I is made in the nature of a stop-cock, with a tapering spigot having a diametrical bore i^4. The valve I is held tightly in the side of the casing i^3 by means of a helical spring i^5, that is interposed between a washer i^6, retained by a pin on the rear end of the valve I, and a washer i^7 at the rear end of the casing i^3, as shown in Fig. 15. When the diametrical bore i^4 of the valve I communicates with the channel i^2 in the casing i^3, the air can freely pass through the valve to or from the bellows. The air-regulating valve I is supported on a bracket D^3, attached to the upright frame D and provided with an upwardly-extending segmental plate D^4, along which moves an arm I', applied to the valve I. The position of the arm is regulated by means of a set-screw i^8, said set-screw being secured in position by means of a clamping-screw i^9, which turns in the threaded guide-socket i^{10} of the set-screw, as shown in Fig. 14. The upper perforated end of the arm I' of the valve I is guided along an arc-shaped rod i^{11}, between which and the supporting-socket of said rod is interposed a helical spring i^{12}, as shown clearly in Fig. 14. When the arm I' is in vertical position, the diametrical bore i^4 of the valve coincides with the channel i^2 of the casing. By adjusting the arm I' slightly to either side of the vertical line the valve is shifted so that only a portion of its diametrical bore is in communication with the channel i^2 in the valve-casing, so that thereby the discharge of the air from the valve is retarded. By adjusting the discharge-port of the air-valve I in this manner the period of time for which the shutter is intended to be opened can be regulated to a nicety, for the reason that the collapse of the bellows and the return of the latch mechanism into their normal position is retarded when the outlet of air from the main bellows is retarded and accelerated when there is a free escape of air through the channel of the casing and bore of the valve.

Operation: My improved coin-operated telescope is operated as follows: When a coin of the required size is dropped into the slot of the coin-chute, it is conducted through the coin-tube d^2 to the coin-tube d^3 of the latch mechanism L and through the same into the inclined slots of the latch-plates, so as to couple them together, as shown in Fig. 24. The coin is held in this position by the angular arm of the latch L^4, which extends partly over the opening of the latch-plate L^2 and prevents the escape of the coin from the slot. The crank e is now turned once around in the direction indicated by the arrow in Fig. 1. This produces the turning of the pulleys e' e^2 until the spring-actuated finger e^5 abuts against the stationary plate e^{12} and permits the release of the pulley e^2 from its engagement with the finger e^5. During the turning of the crank e both pulleys e' and e^2 are taken along with the crank-shaft and the latch-plates L' L^2 lifted from their initial position at the lower end of the guide-frame D until they arrive at the upper end of the same, as shown in Figs. 21 to 23. As soon as the stop of the slide-plate L^6 on the latch-plate L^2 abuts against the stationary stop l^2 on the supporting-frame D the slide-plate L^6 is shifted in downward direction. During the upward movement of the latch-plates L' L^2 they are prevented from moving in downward direction by the engagement of the weighted pawl with the stationary rack L^3 on the guide-frame D. By the shifting of the slide-plate L^6 the nose of the same clears the inclined head of the latch L^4, as shown in Fig. 22, so that the latch is permitted to tilt sidewise on its pivot and liberate thereby the coin, which is then dropped from the inclined slots of the latch-plates over the deflecting-plate d^6 into the lower part of the casing. As the weighted pawl on the latch L^4 is moved inwardly with the latch L^4 it cannot engage the rack L^3, and the latch-plates L' L^2 are permitted to move by gravity in downward direction until a projecting lug g' on the latch-plate L^2 is arrested by a stationary stop g^3 on the platform D' of the casing C. As the latch-plate L' is guided by the stop r at its upper end in a slot r' of the latch-plate L^2, it will assume the required position toward the latch-plate L^2, so that their inclined coin-slots are alined ready for the next coin, while the coin-tube d^3 and the weighted pawl d^4 are returned into their normal positions. (Shown in Fig. 3.) As both latch-plates and the latch are returned to their normal or initial positions with the angular arm of the latch extending over the left-hand end of the inclined slot in the latch-plate L^2, it produces thereby the arresting of the next coin when the same is dropped into the coin-chute. As the latch-plates are supported on the platform of the casing, they cannot move into the lower part of the same. While the crank mechanism is operated and the latch-plates are raised by the same, the weighted valve G on the air-escape pipe of the main bellows is placed in raised position, so as to permit the free ingress of air into the main bellows and free expansion of the same in following the lifting movement of latch-plates. When the latch-plates are raised and the main bellows expanded to its full extent, the finger on the lifting-rod of the main bellows actuates the elbow-lever of the weighted valve and causes the dropping of the latter into closed position, so that the air cannot escape through the air-outlet pipe, but only through the air-regulating valve I, which has been adjusted according to the period of time for which the shutter in the telescope is to remain open, so that the telescope can be used by the person having dropped the coin for the required length of time. When the lowering of the

latch-plates and the collapse of the main bellows is accomplished, the upper finger of the connecting-rod of the bellows reëngages the actuating elbow-lever of the weighted valve G, so that the latter is raised again into the position shown in Fig. 3, whereby atmospheric pressure is reëstablished in the main bellows and the same are ready for being expanded again. The parts are now again in their normal position ready to be started again by the next dropping of the coin and the turning of the crank when another person desires to use the telescope.

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

1. The combination of a telescope, a shutter mechanism in said telescope, a coin-operated latch mechanism, a crank mechanism for raising said latch mechanism, means for releasing the crank mechanism when the latch mechanism is raised, and means for pneumatically holding said shutter in open position during the return motion of the latch mechanism, substantially as set forth.

2. The combination of a telescope, a shutter mechanism in the same, a latch mechanism, a coin-chute for supplying a coin to said latch mechanism, a crank mechanism connected with said latch mechanism for raising the latter, means for releasing the crank mechanism when the latch mechanism is raised, a main bellows connected with the latch mechanism, and an auxiliary bellows connected with the main bellows and the shutter mechanism and adapted to hold the latter open during the return of the latch mechanism and main bellows to their normal positions, substantially as set forth.

3. The combination of a telescope, a shutter in the same, a latch mechanism, a coin-chute for supplying a coin to said latch mechanism, a crank mechanism for raising the latch mechanism, means for releasing the crank mechanism from the latch mechanism when the latter is raised so as to permit the return of the latch mechanism, and means for pneumatically holding the shutter in open position during the descent of the latch mechanism, substantially as set forth.

4. The combination of a telescope, a shutter in the same, a latch mechanism, a coin-chute for supplying a coin to said latch mechanism, a crank mechanism for raising the latch mechanism after a coin is supplied to the same, means for releasing the crank mechanism when the latch mechanism is raised, a main bellows connected with the latch mechanism, an auxiliary bellows for operating the shutter, a pipe connecting the main bellows with the auxiliary bellows, and an air-escape valve for regulating the return motion of the latch mechanism and the main bellows and the period of time for which the shutter is held in open position, substantially as set forth.

5. The combination of a telescope, a shutter in the same, a coin-operated latch mechanism, a crank mechanism for raising the latch mechanism, means for releasing the crank mechanism from the latch mechanism when the latter is raised, means for pneumatically holding the shutter in open position during the return of the latch mechanism, and a valve mechanism for regulating the return motion of the latch mechanism and shutter-holding devices and the period of time for which the shutter is to be held in open position, substantially as set forth.

6. The combination of a telescope, a shutter in the same, a coin-operated latch mechanism, a crank mechanism for raising the latch mechanism, means for releasing said crank mechanism from the latch mechanism when the latter is raised, a main bellows connected with the latch mechanism, a valve operated by the latch mechanism so as to permit the expansion or collapse of the main bellows, an auxiliary bellows for operating the shutter, a pipe connecting the main bellows with the auxiliary bellows, and an air-escape valve for regulating the return motion of the main bellows, latch mechanism and shutter, substantially as set forth.

7. In a coin-operated telescope, the combination, with a latch mechanism composed of two independently-guided latch-plates having inclined coin-slots, and a latch having an angular coin-retaining arm, of a coin-chute composed of a drop-plate and an intermediate coin-tube, a coin-arresting device at the lower end of the intermediate coin-tube, a coin-tube on one of the latch-plates for receiving the coins from the intermediate coin-tube for delivery to the coin-slots, said coin-tube engaging the coin-arresting device, and an inclined deflecting-plate on the other latch-plate for delivering the coin after its release from the latch-plates, substantially as set forth.

8. In a coin-operated telescope, the combination, with a coin-chute, composed of a drop-plate and an intermediate coin-tube having a coin-arresting device at its lower end, of a latch mechanism composed of independently-guided latch-plates having inclined coin-slots and a latch having an angular coin-retaining arm, a coin-tube on the latch-plate adjacent to the intermediate coin-tube, and an inclined deflecting-plate on the other latch-plate and engaging the coin-arresting device at the end of said intermediate coin-tube, substantially as set forth.

9. In a coin-operated telescope, the combination, with a coin-chute composed of a drop-plate, an inclined coin-guide on the same, an intermediate coin-tube and a coin-arresting device at the lower end of said intermediate tube, of a latch mechanism, composed of independently-guided latch-plates having inclined coin-slots, a coin-tube on one of said latch-plates connecting the intermediate coin-tube with the coin-slots of the latch-plates, an inclined guide-plate on the other latch-plate and engaging the coin-arresting device

at the end of the intermediate coin-tube, and a latch having a coin-retaining arm pivoted to said latch-plates sidewise of the deflecting guide-plate, substantially as set forth.

10. In a coin-operated telescope, the combination, with a coin-operated latch mechanism, of a crank mechanism, composed of a rotary crank-shaft, a fixed pulley on the same, a loose pulley sidewise of the fixed pulley, means for carrying along the loose pulley, a chain attached to said loose pulley and connected with the latch mechanism, and means for detaching the carrier mechanism of the pulleys so as to release them from each other and permit the return of the latch mechanism, substantially as set forth.

11. In a coin-operated telescope, the combination, with a coin-operated latch mechanism, of a crank mechanism consisting of a crank-shaft, a fixed pulley on the same, a spring-actuated and recessed finger guided on said pulley, a loose pulley adjacent to said fixed pulley, a laterally-projecting pin on said loose pulley adapted to be engaged by said finger, a chain attached to said pulley and connected with the latch mechanism, a stationary concave plate adapted to release the finger from the loose pulley so as to disconnect the same, and a spring-actuated cushioning device for the loose pulley, substantially as set forth.

12. In a coin-operated telescope, the combination, with a coin-operated latch mechanism, of a crank mechanism for operating the latch mechanism, consisting of a crank-shaft, a fixed pulley on the same provided with a guided and spring-actuated recessed finger, a loose pulley on said shaft sidewise of the fixed pulley, provided with a laterally-extending pin engaged by said finger, a chain connecting the loose pulley with the latch mechanism, and a stationary concave plate alongside of said pulleys and adapted to engage the finger and release it from the pin on the loose pulley when the crank-shaft is turned, substantially as set forth.

13. In a coin-operated telescope, the combination, with the crank mechanism, of a latch mechanism operated by the same, a chain connecting the crank mechanism with the latch mechanism, means for releasing the crank mechanism when the latch mechanism is raised, a main bellows, a rod connecting the latch mechanism with the main bellows, an air-tube connected with the lower part of the main bellows, a pivoted and weighted valve for opening or closing the upper end of said air-tube, and means actuated by the latch mechanism for opening or closing said valve and permitting the slow collapse of the main bellows, substantially as set forth.

14. In a coin-operated telescope, the combination, with the crank mechanism, of a latch mechanism, a chain connecting the crank mechanism with the latch mechanism, means for releasing the crank mechanism when the latch mechanism is raised, a main bellows, a rod connecting the latch mechanism with the main bellows, a telescope, a hinged shutter in said telescope, an auxiliary bellows connected with the frame of the shutter, a pipe connecting the main bellows with the auxiliary bellows, and a coin-carrying device for supplying the coin to the latch mechanism so as to produce the actuation of the bellows and holding open of the shutter in the telescope and the return of the shutter into closed position when the bellows are returned to their normally-collapsed position, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

OTTO WEISE.

Witnesses:
PAUL GOEPEL,
M. H. WURTZEL.