

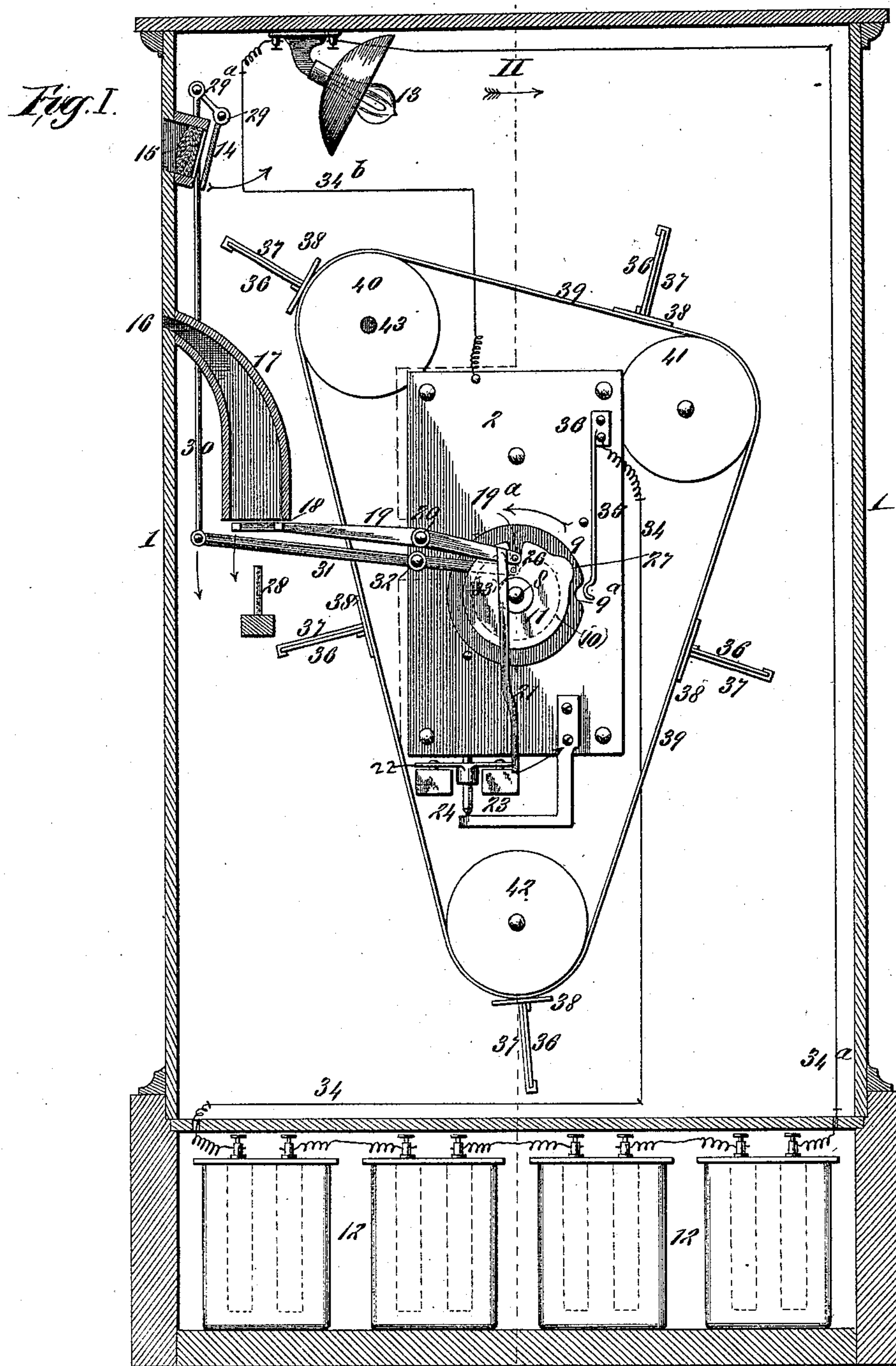
(No Model.)

2 Sheets—Sheet 1.

J. RINGEN.
COIN CONTROLLED STEREOSCOPE.

No. 485,567.

Patented Nov. 1, 1892.



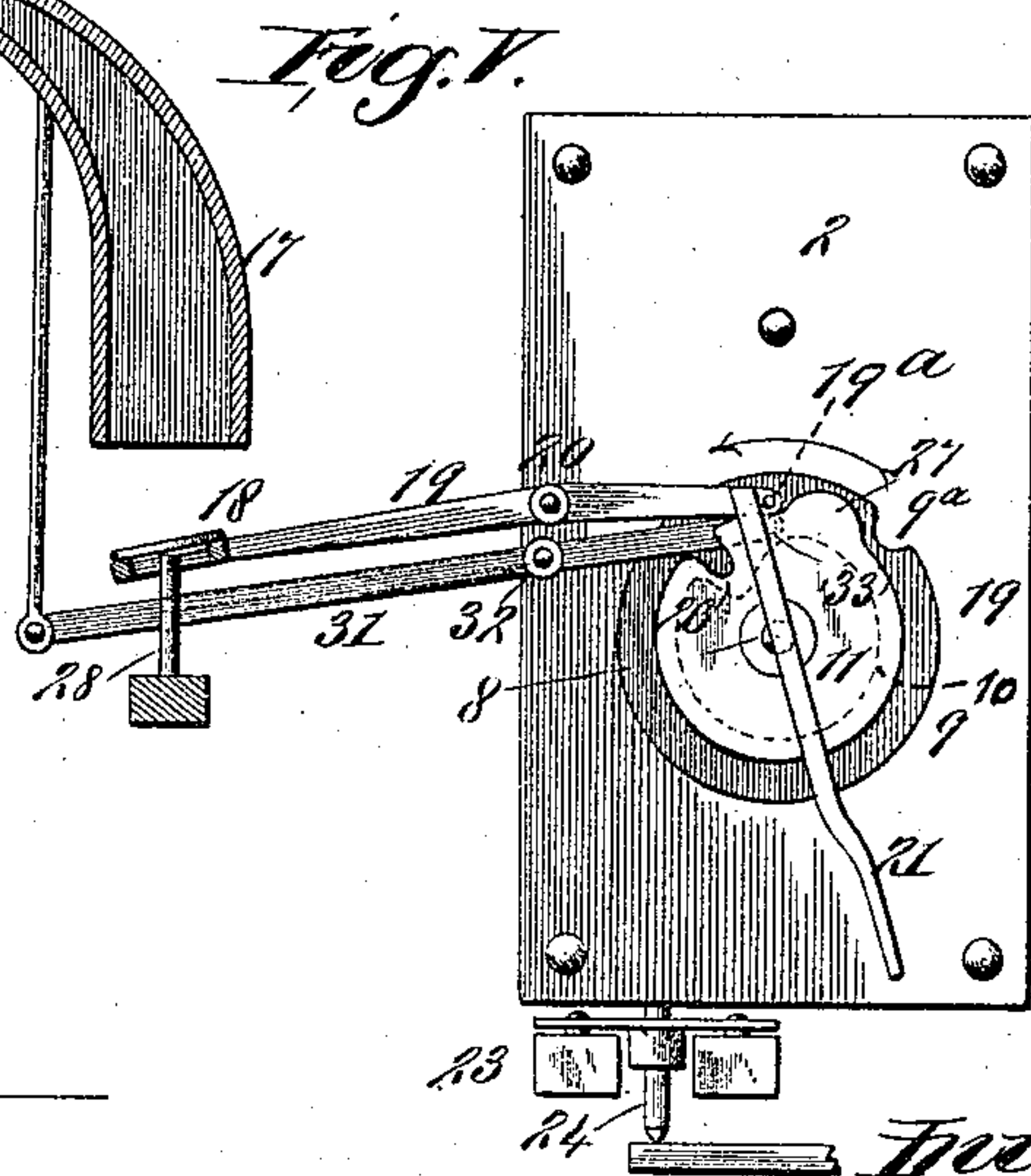
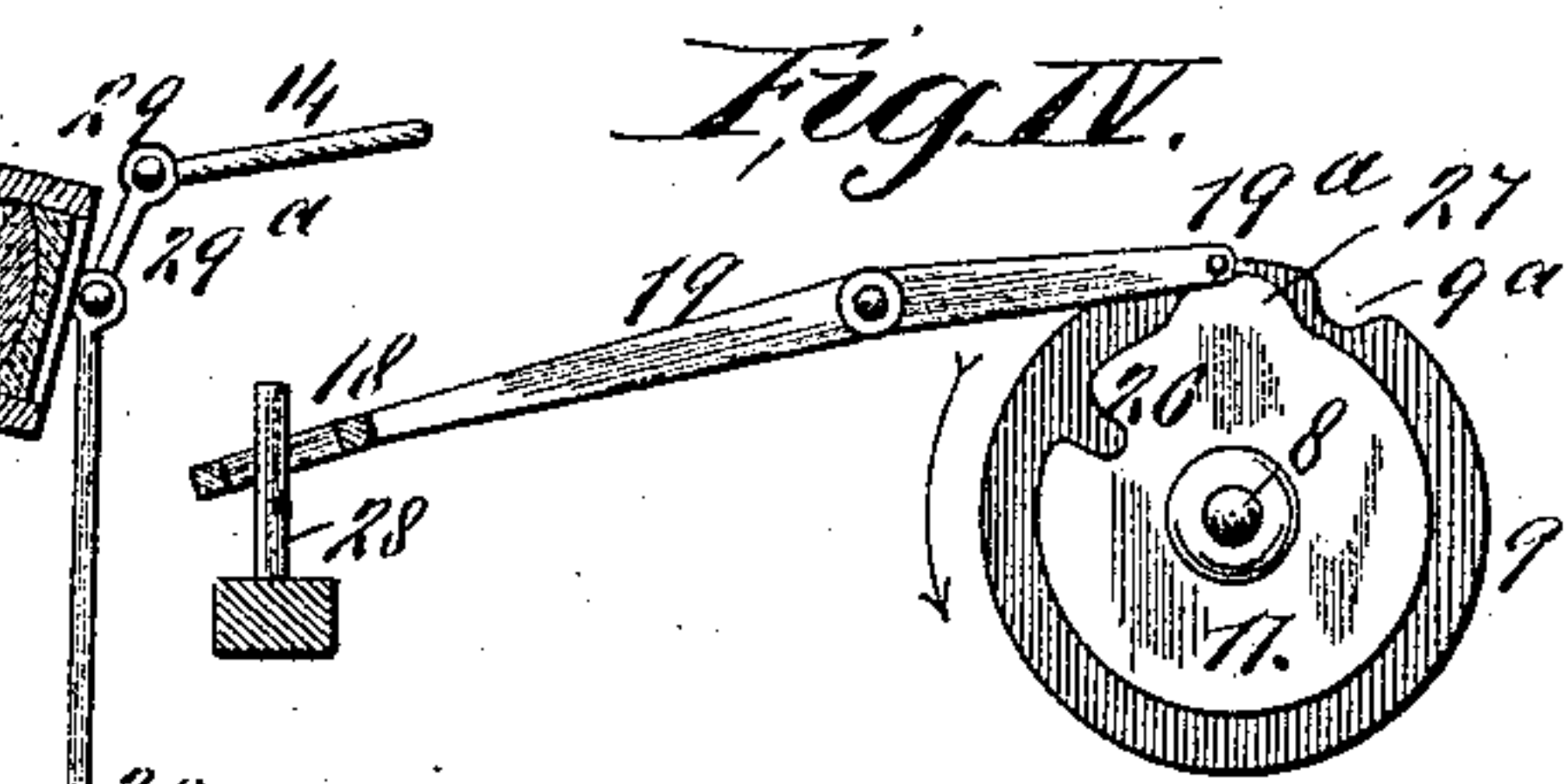
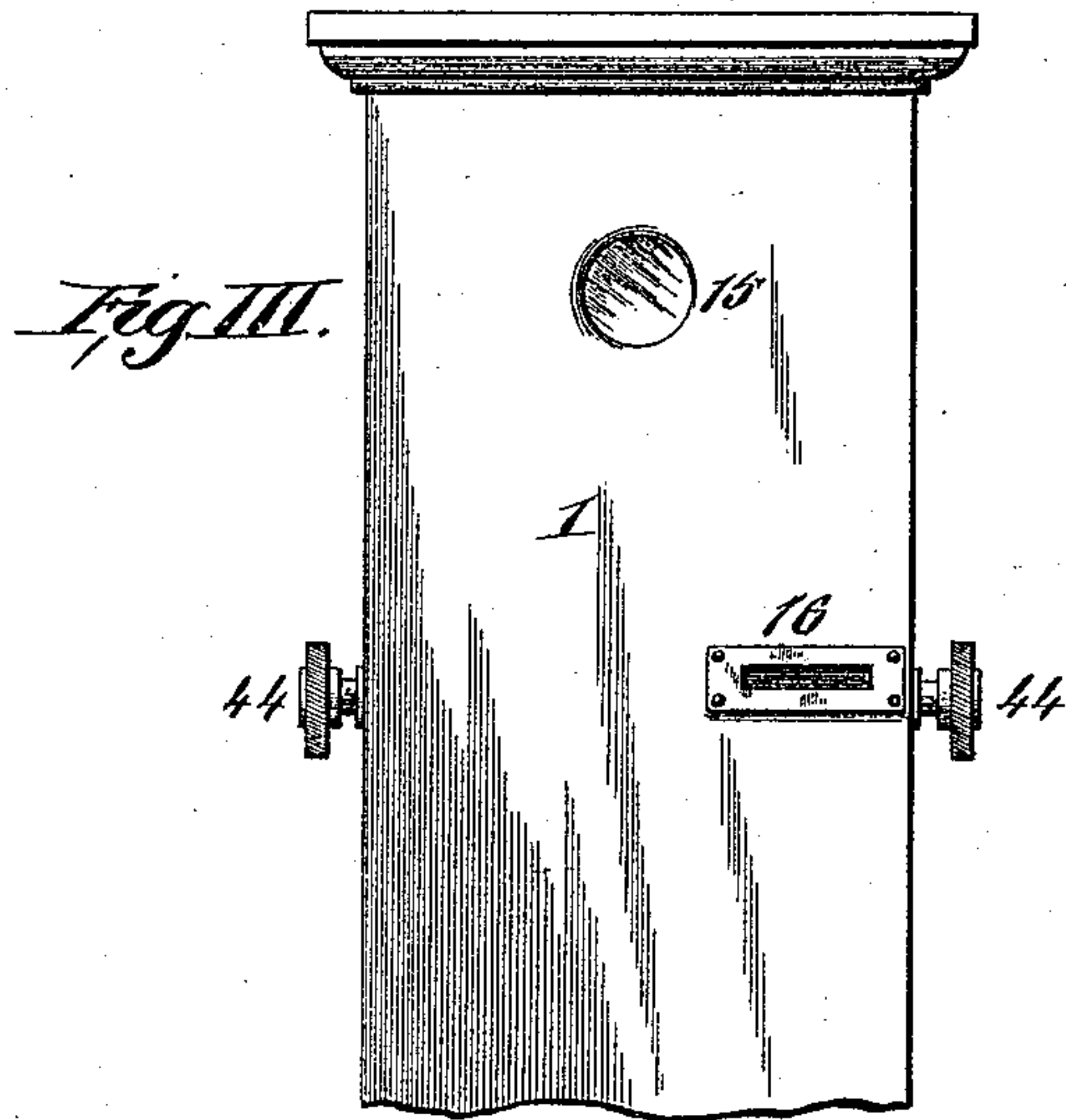
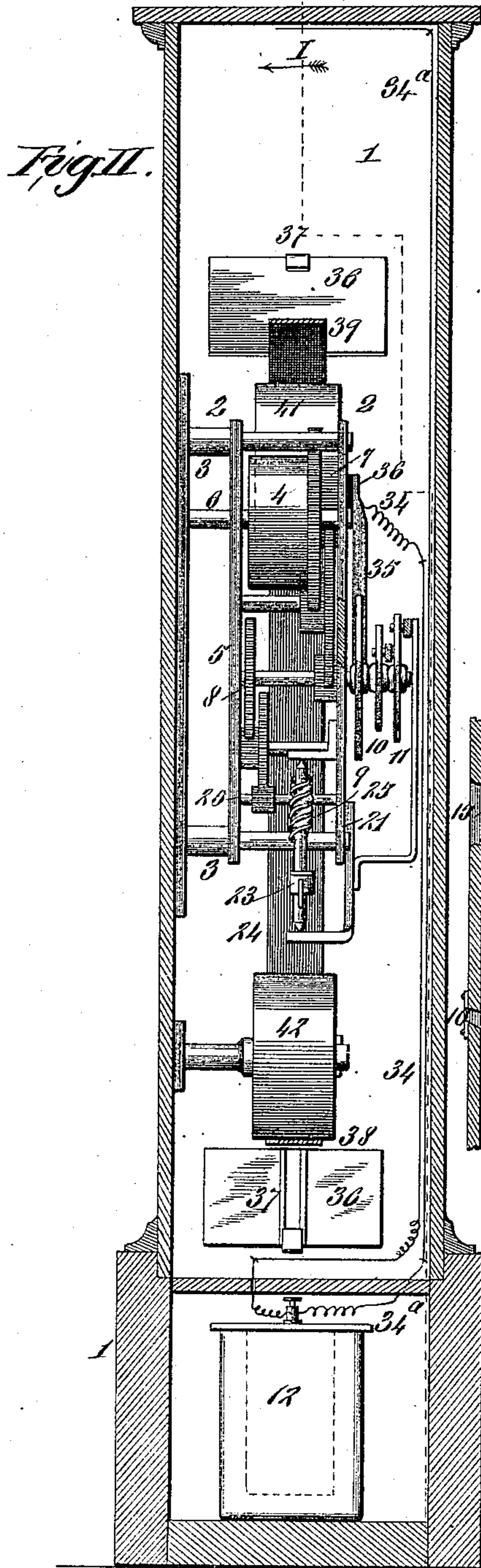
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UNITED STATES PATENT OFFICE.

JOHN RINGEN, OF ST. LOUIS, MISSOURI.

COIN-CONTROLLED STEREOSCOPE.

SPECIFICATION forming part of Letters Patent No. 485,567, dated November 1, 1892.

Application filed February 12, 1892. Serial No. 421,318. (No model.)

To all whom it may concern:

Be it known that I, JOHN RINGEN, a citizen of the United States of America, and a resident of St. Louis, Missouri, temporarily at Frankfort-on-the-Main, Germany, have invented new and useful Improvements in Coin-Controlled Stereoscopes, of which the following is a specification.

My invention consists in the features of novel construction hereinafter described and claimed.

Figure I is a longitudinal section of my coin-controlled exhibitor, taken at I I, Fig. II. Fig. II is a vertical section taken at II II, Fig. I. Fig. III is a front view of the upper part of the case or cabinet. Fig. IV is a detail side elevation showing the cam and detent lever, the parts being in position for the tripping of the coin. Fig. V is a detail section, also taken at I I, Fig. II, showing parts in different position to that shown in Fig. I.

The cabinet or case 1 contains a clock mechanism having a housing 2, consisting of parallel plates secured by studs 3 to the side wall of the cabinet.

4 is the main spring of the mechanism 5, mounted upon a shaft 6 and operating the first spur-wheel 7, having the usual ratchet connection with the winding-shaft and the gear-wheels of the mechanism, as found in ordinary clockworks.

8 is a shaft carrying three disks 9, 10, and 11, the peripheral outlines of which are seen in Figs. I, IV, and V. The disk 9 serves to make and break the electric connection between the electric accumulator or batteries 12 and the inclined electric light 13. The disk or cam 10 serves to open the cover 14 to the inclined object-glass 15. The disk or cam 11 is a detent-cam, acting in conjunction with the coin-lever to hold the clock mechanism in its normal position of rest. The front of the cabinet has a slot 16, adapted for the passage of a coin of desired dimensions. This slot is at the upper end of a coin-chute 17, whose lower end is closed by the end 18 of the coin or detent lever 19. This lever is fulcrumed to the housing-plate at 20, and has a depending arm 21, engaging, when in normal position, the cross-arm 22 of the fan 23, by which the speed of the clockwork is limited. This cross-arm carries the wings of the

fan and is upon a spindle 24, having a gear-screw 24^a, engaging a screw gear-wheel on the clockwork-shaft 25. It will be understood that the shaft 25 and fan 23 rotate at a high speed, and the resistance of the air limits the speed of the clockwork. The device is in common use in connection with the striking mechanism of clocks, and needs no further explanation. The inner end of the coin-lever 19 has a stud 19^a, normally occupying a notch 26 in the disk 11, so as to prevent the rotation of this and the other disks 9 and 10 and also of the clock mechanism. When a coin is dropped into the chute 17, it is caught on the end 18 of the lever 19 and causes that end 18 to descend, which lifts the stud 19^a from the notch 26, and the clock mechanism is free to turn. The periphery of the cam-disk 11 has a projection 27, that acts on the pin 19^a and throws down the end 18 of lever 19 until a standing pin 28 passes through an opening in the end and tilts the coin off the end 18. (See Fig. IV.) As the pin leaves the projection 27 its descent is limited by the periphery of the cam-disk and is not allowed to descend until the rotation of the disk brings the notch 26 beneath it, when it drops into the notch and arrests the motion of the clockwork. The cover 14 of the object-glass 15 is open during the movement of the clock mechanism, so as to allow a person during that time to look through the glass into the cabinet. To accomplish this the cover is pivoted at 29 and attached to an arm 29^a, connected by a rod 30 to one end of a lever 31, fulcrumed at 32 to the housing, and carrying at the inner end a pin 33, that is in contact with the periphery of the cam-disk 10. The form of this periphery is such that when the cam 11 begins to turn the cam 10 lifts the inner end of the lever 31 and throws up the cover 14 and keeps the cover in this position until the cams reach their normal position, when the inner end of the lever 31 descends and the cover 14 closes over the object-glass 15. (See Fig. I.) When closed the cover displays a placard of instructions for operating the stereoscope. The lower part of the cabinet contains one or more electric accumulators or galvanic batteries 12.

The conducting-wire 34 leads to a terminal spring 35, that is insulated at its point of at-

tachment 35 with the metal housing. This terminal spring is in contact with the periphery of the metal disk 9 while the clock-work is in motion; but when the parts are in normal position the spring is not in contact with the disk, the disk being notched at 9^a to prevent contact when in this position. The spring 35 being one terminal, the disk 9 is the other, an incandescent or other electric light 13 being in circuit.

34^a is the part of the conducting-wire between the accumulator and the electric light, and 34^b the conductor between the light and the metal plate with which the disk 9 is in contact. This serves to illuminate the pictures while the cover is open. The pictures 36 are carried on brackets 37, attached to an endless belt 39, carried on three rollers 40 41 42. The shaft 43 of the pulley 40 ends in thumb-knobs 44 outside the cabinet, by which the roller may be turned and the whole belt revolved to exhibit one picture after another as each in turn comes in line with the object-glass and with the rays of light projected by the reflector behind the electric light. The brackets 37 are connected to the belt 39 by a flat base 38, extended in both directions, the connection between the base and the belt being made on a transverse line immediately beneath the edge of the picture, so that the belt may leave the edges of the base when passing over the rollers, as seen in Fig. I, while the picture stands out at right angles to the belt when between the rollers. While the picture is passing from roller 41 to roller 40, it is inclined and in direct line with the inclined object-glass and in the rays of light, so that the picture can be arranged in the proper focus for the eye of each patron.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of the rollers, the endless belt carried by the rollers, and the picture-brackets having secured to the belt flat bases extending in both directions, substantially as described.

2. The combination of the casing having a coin-slot, the coin-chute, the clock mechanism having fan-arms, the shaft rotated by the clock mechanism having cam-disk 11 formed with a notch, the coin-lever having one end normally closing the lower end of the coin-chute and the other end provided with a stud normally occupying the notch of the cam-disk, the standing pin located beneath the outer end of the coin-lever, and means for releasing the clock mechanism for rotating the cam-disk, substantially as described.

3. The combination of the casing having a coin-slot, the coin-chute, the coin-lever, the object-glass, the pivoted cover having an arm, the connecting-rod, the cover-lever, the clock mechanism, the shaft rotated by the clock mechanism, the cam-disks 11 and 10, secured to the shaft, the rollers, the endless belt, the picture-brackets on the belt, and means for releasing the clock mechanism for rotating the cam-disks, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN RINGEN.

Witnesses:

JEAN GRUND,
ALVESTO S. HOGUE.