

(No Model.)

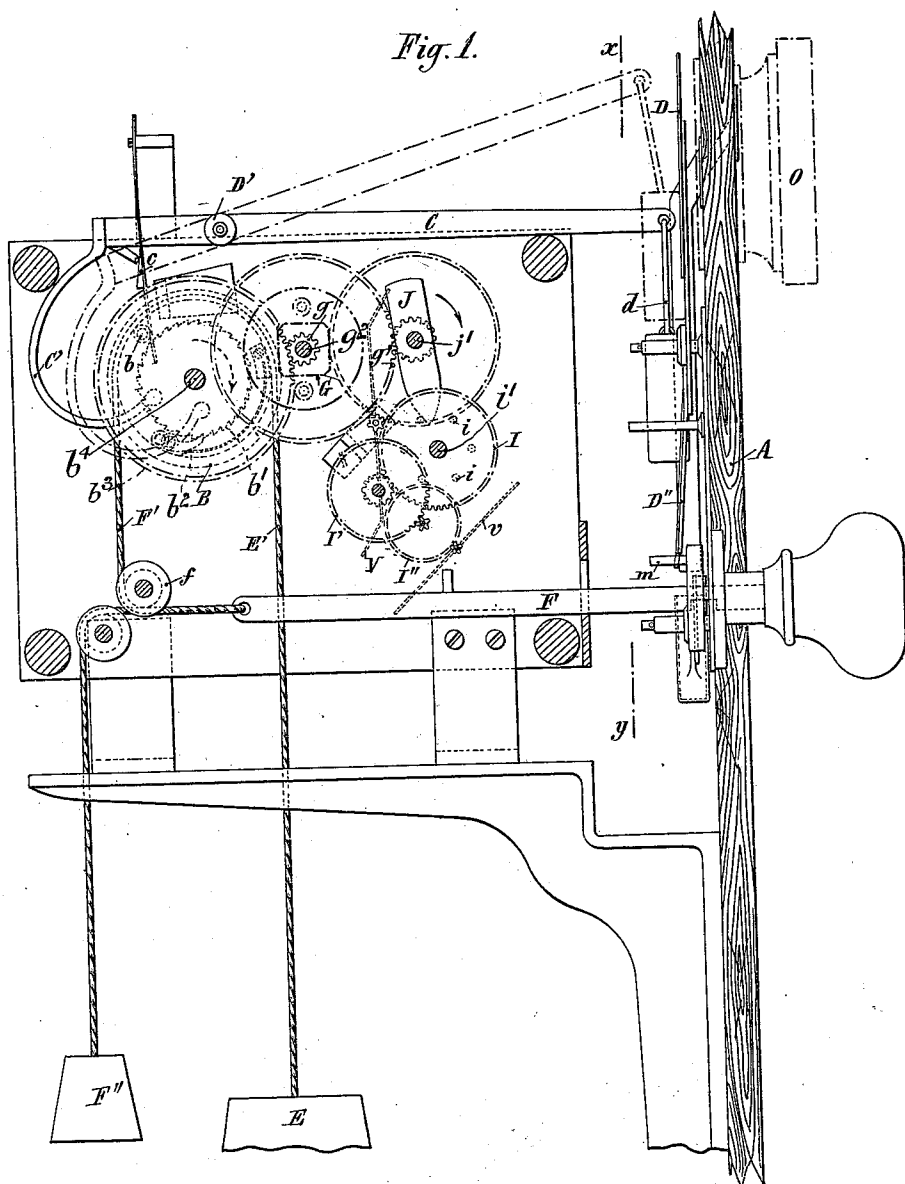
3 Sheets—Sheet 1.

I. G. LÉVY.

COIN FREED DISPLAYING APPARATUS.

No. 551,775.

Patented Dec. 24, 1895.



Witnesses:
H. K. Boulter
C. Northrup

Inventor:
Isaac G. Levy.
By Wm E. Fowler,
attorney

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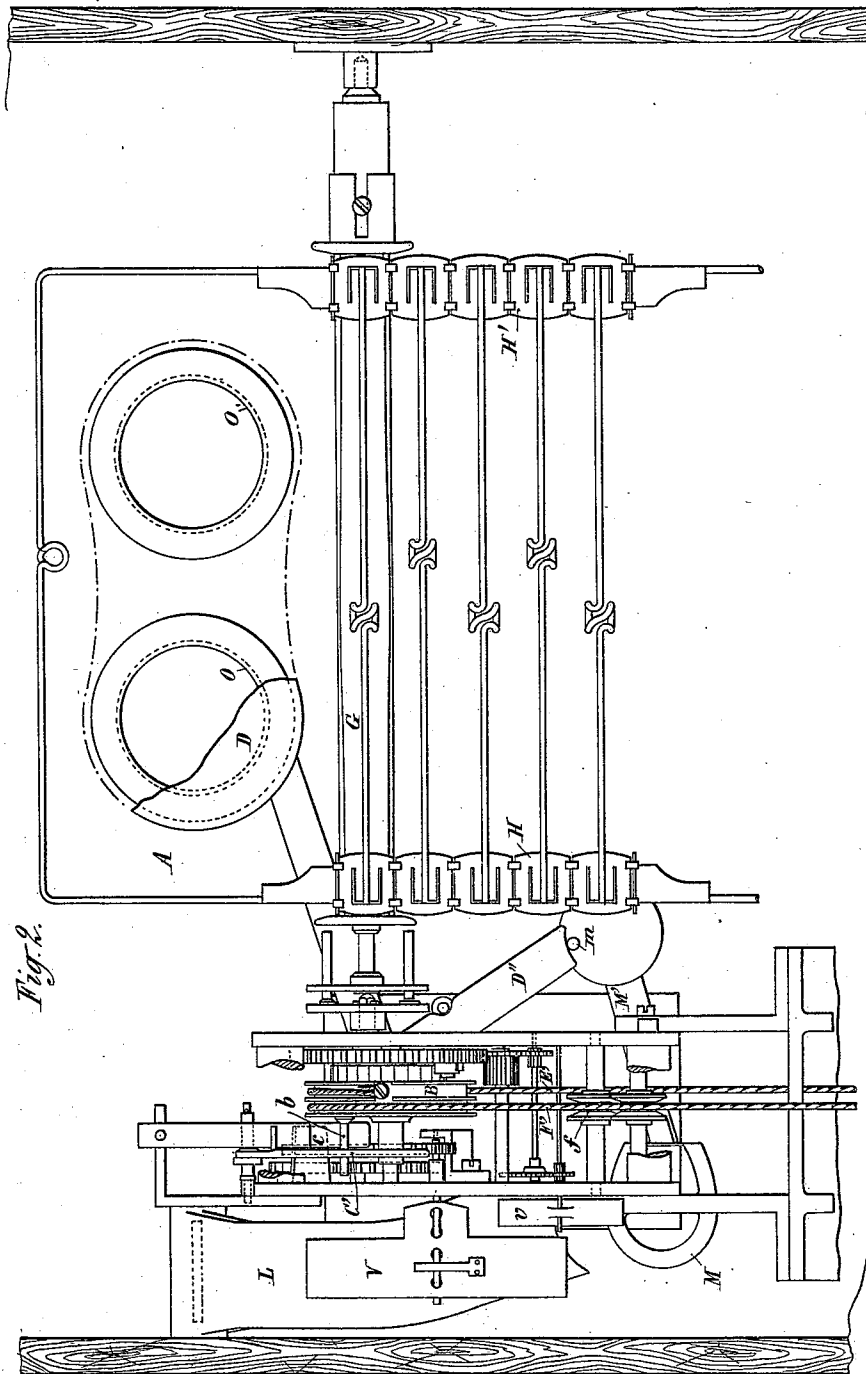


Fig. 2.

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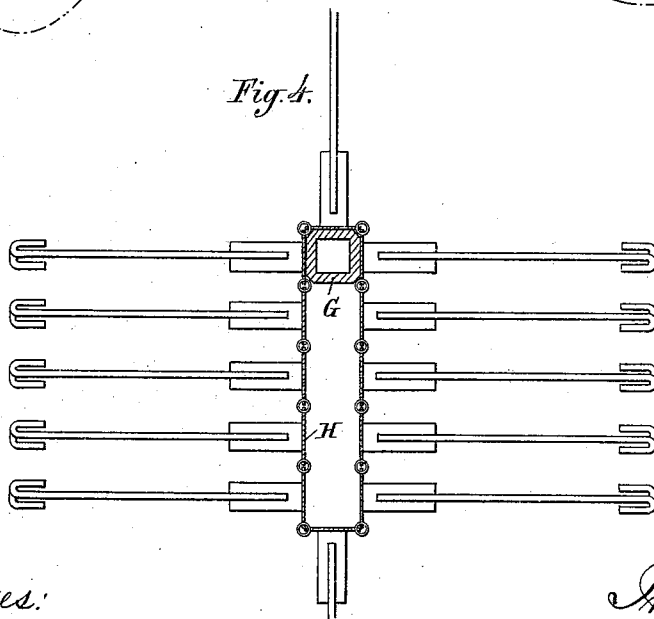
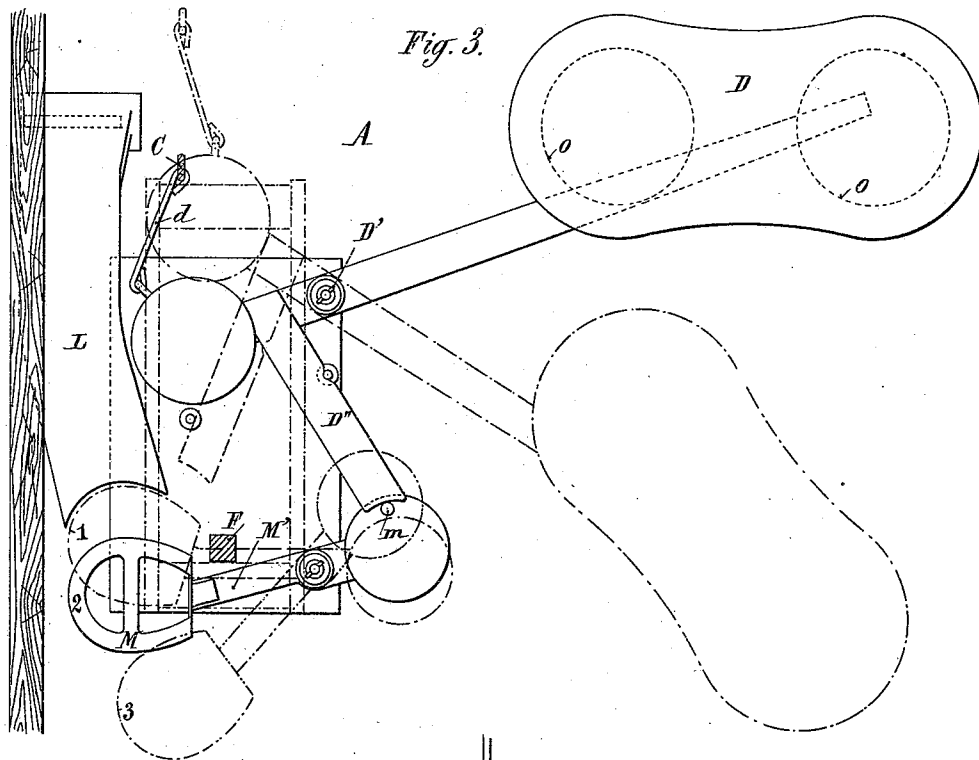
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O. G. Shortrup

Inventor:

Isaac V. Levy

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UNITED STATES PATENT OFFICE.

ISAAC GEORGES LÉVY, OF PARIS, FRANCE, ASSIGNOR TO I. LÉVY & SONS,
OF SAME PLACE.

COIN-FREED DISPLAYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 551,775, dated December 24, 1895.

Application filed January 9, 1895. Serial No. 534,323. (No model.) Patented in France July 28, 1893, No. 231,823; in England August 10, 1893, No. 15,276; in Belgium August 10, 1893, No. 105,941; in Switzerland August 11, 1893, No. 7,103; in Germany August 17, 1893, No. 79,475, and in Austria-Hungary August 21, 1893, No. 45,426.

To all whom it may concern:

Be it known that I, ISAAC GEORGES LÉVY, a citizen of the Republic of France, residing at Paris, France, have invented certain new and useful Improvements in Coin-Freed Displaying Apparatus, (for which I have obtained Letters Patent in England, No. 15,276, dated August 10, 1893; in France, No. 231,823, dated July 28, 1893; in Germany, No. 79,475, dated August 17, 1893; in Austria-Hungary, No. 45,426, dated August 21, 1893; in Belgium, No. 105,941, dated August 10, 1893, and in Switzerland, No. 7,103, dated August 11, 1893,) of which the following is a full, clear, and exact description.

The object of the present invention is to provide an apparatus for automatically displaying stereoscopic or like views by means of a coin-freed clockwork-movement.

In the accompanying drawings, Figure 1 is a side view of the mechanism under the control of a coin-freed device, one of the plates or walls of the apparatus having been removed for the purpose of showing the constituent parts. Fig. 2 is a rear elevation of the above mechanism. Fig. 3 is a section on the line *x y* of Fig. 1, showing a rear view of the coin-freed device and of the obturator or shutter of the sight-holes. Fig. 4 is a cross-section through the main shaft which supports the chain.

The apparatus comprises a clockwork mechanism fixed to the back of the front plate A in which the sight-holes for the stereoscope are made. The mechanism has two plates, which support the gear-wheels, two flies V and *v*, and a drum B, provided with a pin *b*, which strikes against the curved arm C' of a lever C, which on being lifted by the pin *b* moves the obturator or shutter D, through the medium of a connecting-rod *d*, away from the sight-holes O. After the views have passed in front of the sight-holes the pin *b* returns with the drum in the return movement of the latter and presses against the spring *c*, which keeps the lever C and through it the obturator D in the open position, so as to disengage the said lever C and allow the obturator D to cover the sight-holes O.

The drum or barrel B is provided with two peripheral grooves, in each of which is mounted a cord. A counterweight E fixed to the cord E' provides the motive power. The second cord F' is attached inversely to the direction of the cord E' to the drum and passes round a pulley *f*, to be connected to a bar F, which can be pulled from the outside, so as to raise the weight E. Ratchet-gear herein-after described permits the drum to move freely while the weight E is being wound up, but causes it in its descent to drive a spur-wheel *g*. The bar F is also provided with a cord and a weight F'', so as to bring the said bar always back to its initial position.

The drum B is provided with a ratchet *b'*, which gears with a pawl *b''* carried by a spur-wheel *b'''* on the shaft *b''''*. The spur-wheel *b'''* gears with a pinion *g* secured upon the same shaft *g''* as the main arbor G, the latter being made of a square section the sides of which correspond to the length of the links of the chains H and H' for supporting the frames of the stereoscopic views. It is clear that at each quarter of a revolution of the main arbor G a new photograph will be exhibited, seeing that each card or photograph comes onto the arbor in a position normal to one of its sides and remains so during its revolution through one hundred and eighty degrees, so that only a single arbor is required for operating the views. A second arbor at the lower part of the chain would cause greater resistance, so that an ordinary clockwork could not be used. The pinion *g* through other wheels gears with a toothed wheel *g'* regulated by a fly V, which latter wheel is fixed on the shaft *j'* and causes a finger J, also secured on the shaft *j'*, to turn round and strike against the pins *i* on the wheels I carried by a shaft *i'*, so as to drive, through the latter, two other wheels I' I'', the speed of the last three wheels being controlled or moderated by the fly *v*.

The obturator D pivoted at D' is caused to swing by the movement of the lever C, as hereinbefore stated. An arm D'' serves to stop the balance-lever M' carrying the money-bucket M into which the inserted coin drops, causing the bucket to occupy alternately the

positions 1, 2, and 3, Fig. 3, hereinafter further explained. When the apparatus is not in use the lever M' occupies the position No. 1, and is then engaged in a slot or recess in the bar F in such a manner as to lock the latter and prevent it from being pulled out.

The operation of the apparatus will be easily understood from the following description: The coin having been inserted in the slot falls through the chute L into the bucket M, which is then in its uppermost position No. 1. The weight of the coin causes the bucket to fall and occupy position No. 2 when the lever-arm M' leaves the slot in the bar F, the bucket being then prevented from falling lower on account of the pin *m* being in contact with the arm D', as shown in Fig. 3. The bar F is now pulled out by taking hold of the knob outside the case, which causes the weight E to be raised, when at the same time the pin *b* is brought into contact with the curved lever-arm C'. The lever C is thereby caused to occupy the position shown in dotted lines in Fig. 1 and the obturator D falls and opens the sight-holes O. The obturator in falling through the arm D' sets the pin *m* free, as shown in dotted lines in Fig. 3, in consequence of which the bucket M immediately falls into the position No. 3, when the coin drops into a box below and then allows the counterweight to return the lever M' to position No. 1. The bar F having been released by the operator is drawn in by its weight F'', while the other weight E turns the drum B in the direction of the dotted arrow in Fig. 1, causing the arbor G to rotate at the same time and to exhibit successively the various views to the sight of the spectator. During the same time the finger J turns round and strikes against one of the pins *i* of the wheel I and thereby forces the wheels I I' I'' round, the speed being moderated by the fly *v*. While the finger J is pressing against the pin *i* the views pass slowly before the sight-holes; but as soon as it escapes from the said pin *i* the pin *b* of the drum B, turning in the direction of the dotted arrow, Fig. 1, pushes against the spring *c*, so as to allow the lever C to fall by its own weight and thereby bring the obturator D in front of the sight-holes O. The apparatus is then ready to receive a new coin, so as to show again the stereoscopic or other views to the spectator.

It is obvious that the obturator, instead of being placed in front of or adjacent to the sight-holes, may be placed just as well in front

of the views, so as to cover the light, which may be either natural or artificial. Moreover, the apparatus can be made to serve a number of spectators at one and the same time.

I claim—

1. In automatic display-apparatus the combination with a casing having a sight-opening, of a rotatable shaft of angular cross-section mounted therein, a chain on the shaft with links of a length equal to the width of the sides of the shaft, motor-mechanism an operating-handle for the motor mechanism coin-freed mechanism controlling the operating handle, and a shutter in operative connection with the motor mechanism.

2. In automatic display-apparatus the combination with the frame of motor mechanism and an escapement comprising a drum B a ratchet *b'* thereon a pawl *b²* and spur wheel *b³* shafts *g²* a weight E cord E' handle F weight F'' and shaft *j'* and gearing to place the spur-wheel *b³* and shafts *g²* and *j'* in operative connection with each other the finger J on the shaft *j'* wheels I having pins *i* thereon a shaft *i'* carrying the wheels I and fliers V *v* in operative connection by means of multiplying gear with the shafts *i'* and *j'* respectively substantially as set forth.

3. The combination with a casing provided with sight-openings, of a lever pivoted intermediate its ends, a pivoted shutter adapted to normally cover the sight-openings, a rod connecting the same with one end of the lever, a curved arm carried by the other end of the lever, a revoluble drum, a laterally-projecting pin thereon adapted to strike against the said curved arm as described, and effect the tilting of the lever and the uncovering of the sight-openings by the shutter as specified.

4. The combination with a money receptacle, of a pivoted balanced lever carrying the latter, a reciprocating bar with which said lever normally engages, a swinging shutter, an arm carried thereby, and a pin carried by the balanced lever and adapted to temporarily engage as described with the arm carried by the swinging shutter all arranged for co-operation as specified.

In testimony whereof I have hereunto subscribed my hand in the presence of the two subscribing witnesses.

ISAAC GEORGES LÉVY.

Witnesses:

LOUIS SULLY,

CLYDE SHROPSHIRE.