

W. C. CUTLER & G. I. LEONARD.

ADVERTISING DEVICE.

APPLICATION FILED AUG. 14, 1911.

1,026,242.

Patented May 14, 1912.

2 SHEETS-SHEET 1.

Fig. 2.

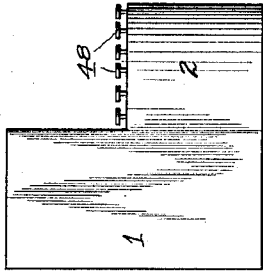
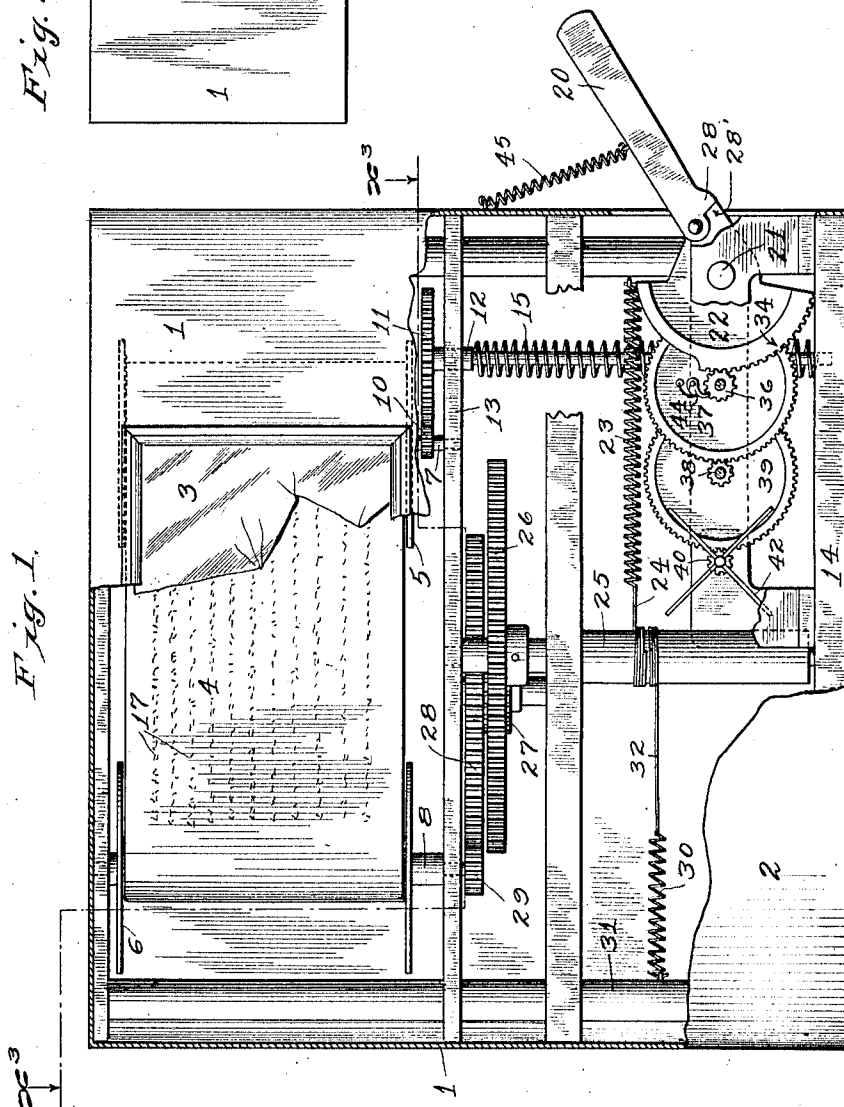


Fig. 1.



Witnesses
Sully Russo.
J. W. Thornburgh.

Inventors
William C. Cutler & George I. Leonard.
By *Hyatt & Hackley* attys.

W. C. CUTLER & G. I. LEONARD.

ADVERTISING DEVICE.

APPLICATION FILED AUG. 14, 1911.

1,026,242.

Patented May 14, 1912.

2 SHEETS-SHEET 2.

Fig. 3.

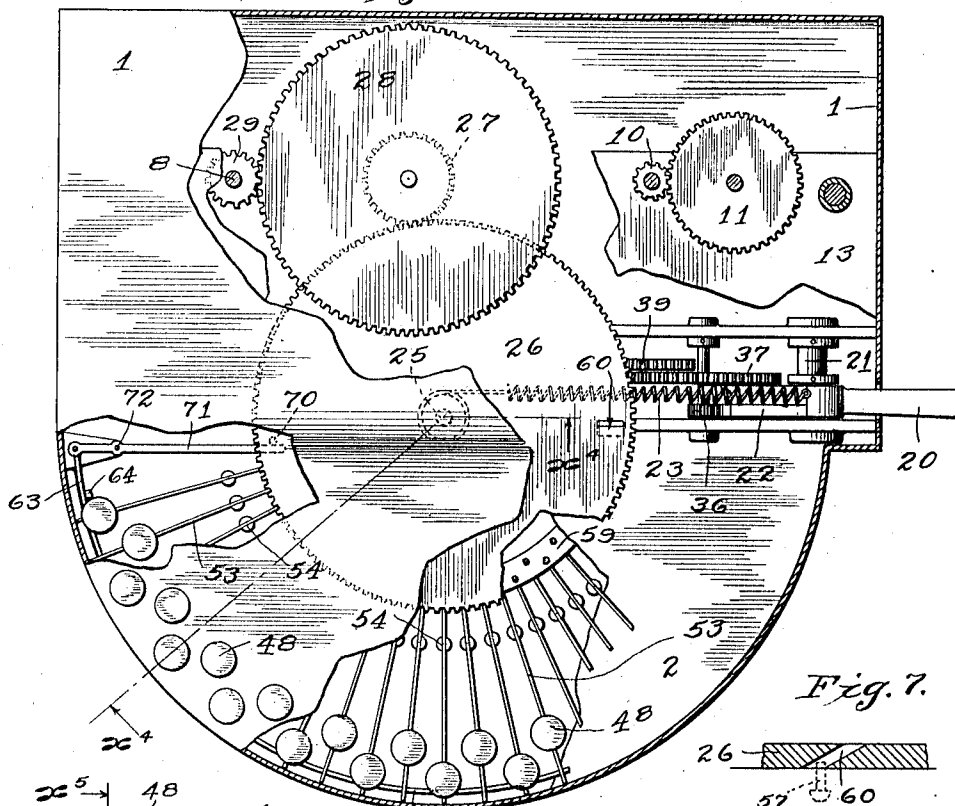


Fig. 7.

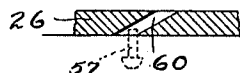


Fig. 4.

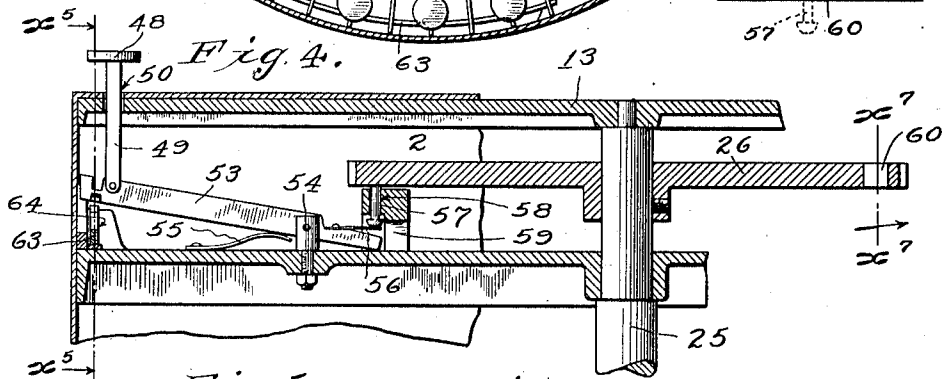


Fig. 5.

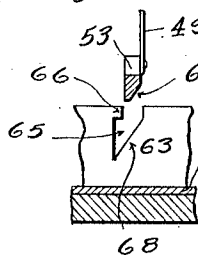
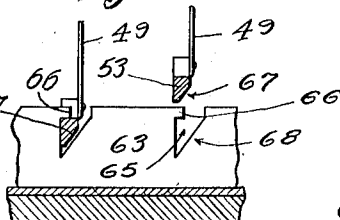


Fig. 6.



Witnesses:
Sully Russo
J. D. Thornburgh.

Inventors:
William C. Cutler & George I. Leonard.
J. H. Hickey atty.

UNITED STATES PATENT OFFICE.

WILLIAM C. CUTLER AND GEORGE I. LEONARD, OF LOS ANGELES, CALIFORNIA,
ASSIGNORS TO ISABEL M. CUTLER, OF SAWTELLE, CALIFORNIA.

ADVERTISING DEVICE.

1,026,242.

Specification of Letters Patent.

Patented May 14, 1912.

Application filed August 14, 1911. Serial No. 644,048.

To all whom it may concern:

Be it known that we, WILLIAM C. CUTLER and GEORGE I. LEONARD, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Advertising Device, of which the following is a specification.

The invention relates to machines for displaying information and advertisements, and the main object of the invention is to provide means whereby any desired part of the information sheet or curtain can be brought into view temporarily, such portion of the sheet being normally out of view and returned to concealed position automatically.

A further object of the invention is to provide means whereby the temporary exposure of any part of the information sheet is limited as to time, this limitation being effected automatically by means not under control of the person using the machine.

Other objects of the invention will appear hereinafter.

The accompanying drawings illustrate the invention, and referring thereto:

Figure 1 is a front elevation of the machine partly broken away. Fig. 2 is a side elevation of the machine. Fig. 3 is a section on line x^3-x^3 in Fig. 1. Fig. 4 is a section on line x^4-x^4 in Fig. 3. Fig. 5 is a section on line x^5-x^5 in Fig. 4. Fig. 6 is a view similar to Fig. 5, showing the parts in operated position. Fig. 7 is a section on line x^7-x^7 in Fig. 4.

The machine is mounted in a case 1 having an extension 2 extending forwardly from its front to serve as a keyboard. The case 1 extends upwardly from the keyboard and is provided with a window or aperture 3 in its front through which is exposed a portion of a curtain 4, winding on rollers 5 and 6, in the interior of the case, said rollers being carried by shafts 7 and 8. Shaft 7 carries a pinion 10 engaged by a gear wheel 11 on a shaft 12, mounted to turn in plates 13 and 14 in the case, said shaft 12 being rotated by a spring 15 connected thereto and to the plate 14 in such manner as to tend to turn the gears 11 and 10 so as to wind the curtain or sheet 4 on the roll 5, this being the roll on which the curtain or sheet is normally mounted. Means are provided for winding the curtain temporarily on the other roll 6 to a greater or less extent ac-

cording to the part of the curtain which is to be exposed, said curtain having printed or other matter thereon, arranged in sections as indicated at 17, said matter comprising, for example, directory information with advertisements, operating and controlling mechanism being such as to expose such different sections selectively.

The operating mechanism comprises a handle 20 rotatably mounted on a shaft 21, a segment 22 operated by said handle, a spring 23 connected with said segment, a flexible connection or cord 24 connected to said spring for winding on a shaft 25, and a train of gearing 26, 27, 28 and 29 connecting said shaft 25 with the shaft 8 of the roll 6. Handle 20 is preferably provided with a shoulder 28 engaging with a shoulder 28' on the segment 22, so that in the downward movement of the handle 20 the segment 22 is rotated but the upward movement of the handle 20 is without effect on the segment, the return movement of the segment being produced wholly by the action of the spring 23. Another spring 30 is connected to a fixed support 31 and to a cord 32 winding on the shaft 25 in the opposite direction to the cord 24, so that the spring 30 tends to turn the shaft 25 in the opposite direction to that in which it is turned by the spring 23. Segment 22 is provided with a segment gear 34 and a train of gears 36, 37, 38, 39 and 40 connecting said segment gear with a fan 42 whereby the return movement of the segment gear is retarded. Ratchet mechanism is interposed in this train of gearing, consisting of a pawl 44 on gear wheel 37 engaging the pinion 36, so that in the forward movement of the segment 22 by downward movement of the handle 20, the pinion 36 slips freely over the pawl 44, but in the return of the segment 22 the pinion engages the pawl to operate the retarding train of gearing. A spring 45 connected to the handle 20 and to the case 1 tends to draw said handle upwardly so as to restore the same to normal position.

The controlling mechanism consists of a key board comprising a series of keys 48 whose stems 49 are mounted to slide vertically through perforations 50 in the case extension 2 and are connected at their lower ends to key levers 53 pivotally mounted at 54 and pressed upwardly by springs 55. The end of each key lever is provided with a

light spring 56 engaging under a stop member 57 mounted to slide vertically in a perforation 58 in a segmental frame 59, these stop members 57 being directly beneath the gear wheel 26 aforesaid on the shaft 25, and adapted to engage with a slot 60 in said wheel. Said slot is preferably inclined as shown in Fig. 7, so as to insure that the pins will be pressed down out of the way on the backward movement of said wheel. Means are provided for locking each controlling key down in operated position until the controlling operation has been performed and the mechanism is on its return movement. For this purpose a segment strip 63 is mounted to slide in the guide 64 concentrically with the axis of rotation of the wheel 26, the controlling keys and levers being radially disposed around said axis, said segmental strip being provided with a series of notches 65 adapted to receive the respective key levers 53, said notches having shoulder portions 66 adapted to extend over the key levers when the key levers are depressed and the segmental strip is moved longitudinally. Such longitudinal movement of the segmental strip is produced by the engagement of an inclined face 67 on the key lever with an inclined face 68 on said segmental strip. This same longitudinal movement of the segmental strip by any key lever brings the shoulder portions 66 directly under all the other key levers so as to prevent the same from being operated. Wheel 26 has a projection 70 for engaging a lever 71, pivoted at 72 and connected to strip 63 to return the same to normal position.

The operation is as follows: Normally the curtain is wound on the roller 5, the spring 15 tending to hold it in that position. The initial portion or section 17 of the curtain exposed through the opening or window 3 in the front of the case may be provided with advertising matter. The person desiring to use the device will first depress one of the keys 48, said key being marked correspondingly with the class of information desired, for example, being lettered to correspond with an index or list. The key so depressed engages the locking strip 63 by means of the inclined faces 67 and 68 so as to slide said strip around in such manner as to bring the shoulder portions 66 thereon under all of the other key levers and over the operated key lever, said segment strip serving as an interlock between the keys so that only one key can be operated at a time and the operated key is held in operated condition until the locking strip is moved back. The person having depressed the proper key will then press down the handle 20 and by engagement of the shoulder portions 28 and 28' the said handle will turn the segment 22 in such manner as to distend

spring 23, the segment 22 moving freely in this direction by slipping of the ratchet device 44. The operator having depressed the handle may let go of the same without effect on the operation, as the handle is simply returned to normal position by the spring 45 and the segment 22 is held from back movement by its connection through the ratchet device 44 to the train of gears 36, 37, etc., whereby the back movement of the segment 22 is retarded sufficiently to enable the operation of the curtain to be effected by the spring 23. When the spring 23 is distended as stated, it draws on the cord 24 and turns the shaft 25 and through the train of gears 26, 27, 28 and 29 rotates the shaft 8 for the winding roll 6, thus winding the curtain or sheet 4 on said roll and off the roll 5. This winding operation is arrested when in the rotation of the wheel 26 the slot 60 in said wheel comes over the stop member 57 corresponding to the depressed key, it being understood that in the depression of the key the inner end of the key lever moves upwardly so that the spring 56 on said lever presses the corresponding stop member 57 upwardly with a light pressure against the bottom of the wheel 26, and as soon as the slot 60 in said wheel reaches the said stop member, the stop member will be forced therinto by the spring 56 and will arrest the rotation of the wheel 26 in position to expose through the window 3 in the front of the case, the portion of the curtain which carries the information desired and which corresponds to the operated key lever. This operation takes place quickly, under the tension of the spring 23, which is stronger than the spring 30, and the curtain is brought to exposed position before the segment 22 has time to move back any considerable distance, such back movement of the segment being slow by reason of the retardation by the fan 42 and the train of gears connecting said fan with said segment. Such back movement, however, as it continues, gradually relieves the tension on spring 23 and eventually the tension on spring 23 becomes less than on spring 30, it being understood that spring 30 has been put under tension by the winding of the shaft 25 by spring 23, and spring 30 by reason of this tension will, as soon as spring 23 becomes relaxed, operate to wind the spring in the opposite direction and eventually when the spring 23 becomes fully relaxed, the spring 30 will wind the shaft 25 so as to fully unwind the curtain from the winding up roll 6, the curtain being wound onto the roll 5 by the operation of spring 15 as fast as it is unwound from the roll 6. As the wheel 26 is returning to normal position, the projection 70 thereon engages lever 71 to return the locking strip 63 to normal position.

It will be noted that the time during which the depressed portion of the curtain is exposed through the window, is dependent on the tension of the spring and on retardation by the retarding gear and fan, and in no way controllable by the party using the device, so that such party cannot either injure the machine by undue acceleration, or hold the curtain at any one setting longer than is necessary.

What we claim is:—

1. An information and advertising display device, comprising a case, two rolls rotatably mounted therein, a curtain winding on said rolls and provided with information and advertising matter, spring means acting on one of said rolls tending to wind the curtain thereonto, a shaft connected to rotate the other of said rolls, a spring having one end connected to said shaft, a member connected to the other end of said spring and movable to put said spring under tension, a handle for operating said member to put said spring under tension, retarding mechanism connected with said member to retard the back movement thereof, a plurality of stop devices and keys for controlling the same, and means connected to the aforesaid shaft for engaging said stop devices to arrest the rotative movement of said shaft, and another spring connected to said shaft for returning the same to normal position when its operating spring is released.

2. An information and advertising display device comprising a case, two rolls rotatably mounted therein, a curtain winding on said rolls and provided with information and advertising matter, spring means acting on one of said rollers tending to wind the curtain thereonto, a shaft connected to rotate the other of said rolls, a spring having one end connected to said shaft, a member connected to the other end of said spring and movable to put said spring under tension, a handle for operating said member to put said spring under tension, retarding mechanism connected with said member to retard the back movement thereof, a plurality of stop devices and keys for controlling the same, and means connected to the aforesaid shaft for engaging said stop devices to arrest the rotative movement of said shaft, and another spring connected to said shaft for returning the same to nor-

mal position when its operating spring is released, said handle and said member having shoulder means for operating the member in the forward movement of the handle, but allowing the handle to move back independently of said member, and a spring connected to said handle for restoring same to normal position.

3. An information and advertising display device comprising a case, two rolls rotatably mounted therein, a curtain winding on said rolls and provided with information and advertising matter, spring means acting on one of said rollers tending to wind the curtain thereonto, a shaft connected to rotate the other of said rolls, a spring having one end connected to said shaft, a member connected to the other end of said spring and movable to put said spring under tension, a handle for operating said member to put said spring under tension, retarding mechanism connected with said member to retard the back movement thereof, a plurality of stop devices and keys for controlling the same, and means connected to the aforesaid shaft for engaging said stop devices to arrest the rotative movement of said shaft, and another spring connected to said shaft for returning the same to normal position when its operating spring is released, said handle and said member having shoulder means for operating the member in the forward movement of the handle, but allowing the handle to move back independently of said member, a spring connected to said handle for restoring same to normal position and a locking strip movable transversely to the movement of said keys and provided with notches and means operated by said keys engaging with said notches in said locking strip to move the locking strip forwardly on depression of the keys, said locking strip having shoulders engaging said key operating means to hold the operated key in depressed position and to prevent operation of the other keys.

In testimony whereof, we have hereunto set our hands at Los Angeles, California, this 31st day of July, 1911.

WILLIAM C. CUTLER.
GEORGE I. LEONARD.

In presence of—

G. T. HACKLEY,
GLADYS RUSSELL.