

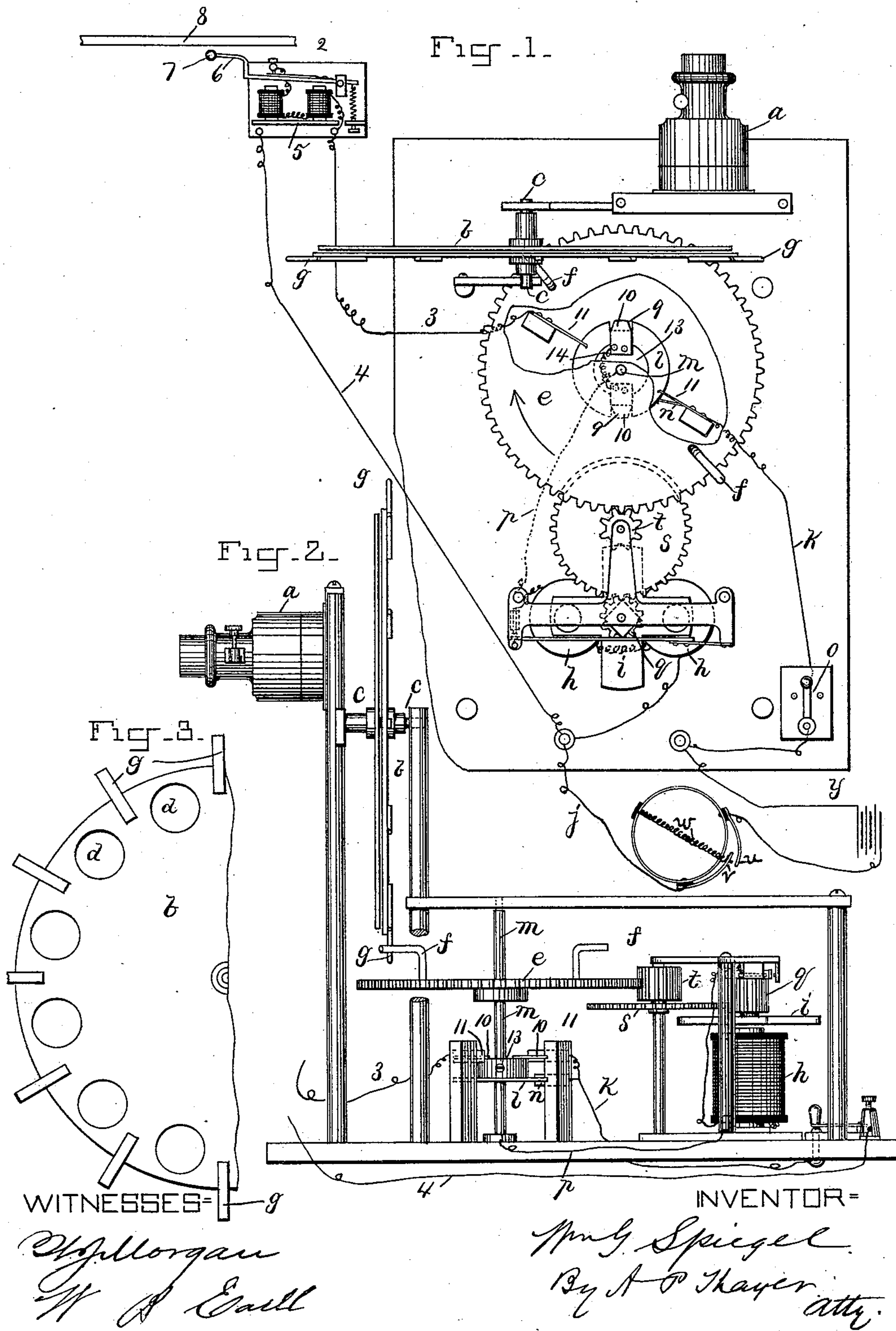
(No Model.)

W. G. SPIEGEL.

MAGIC LANTERN ADVERTISING APPARATUS.

No. 472,912.

Patented Apr. 12, 1892.



UNITED STATES PATENT OFFICE.

WILLIAM G. SPIEGEL, OF NEW YORK, N. Y., ASSIGNOR TO ADOLPH LE MOULT, OF SAME PLACE.

MAGIC-LANTERN ADVERTISING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 472,912, dated April 12, 1892.

Application filed September 15, 1891. Serial No. 405,814. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. SPIEGEL, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in a Magic-Lantern Advertising Apparatus, of which the following is a specification.

My invention consists in improved automatic periodically shifting stereopticon-plates and electro-motive impelling apparatus with a window-tapping call attachment for attracting attention to the advertisements exhibited, which is shunted into and out of connection with the battery by the motor of the stereopticon, so as to be actuated in the intervals of rest of the plate-shifter, and with a thermostatic attachment of the lantern connected in the electric circuit, so as to break the circuit automatically when the lamp burns out or is otherwise extinguished, and thus avoid unnecessary waste of battery-power, all as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of the apparatus. Fig. 2 is a side elevation of the same except the lantern and the thermostatic circuit-breaker, which are omitted in this figure. Fig. 3 is a side elevation of part of the disk on which the advertising-cards and other characters to be exhibited are carried.

Behind the objective lenses *a* is a disk *b*, rotating intermittently in a vertical plane on pivots *c* and having the transparent plates *d*, whereon the advertisements or pictures to be magnified and projected on the screen are painted or otherwise figured, said plates being placed at suitable intervals apart in a circle in the outer margin of the disk.

For actuating the disk periodically I employ any approved electric motor of simple form and a suitable train of driving-gears, whereof the last wheel *e*, moving at a slow rate of speed, has one or more arms *f*, acting against an arm *g* of the disk at each revolution to advance it and change the plates one after another and so as to permit the disk to remain at rest for a time between each movement, said disk having as many arms *g* projecting radially as the number of plates. In this example the wheel *e* has two arms; but

it may have more or less, according to its speed and the desired length of the intervals of time between the movements of the disk. 55

In the motor chosen in this case *h* represents the electro-magnet; *i*, the rotating armature; *j* and *k*, the circuit-wires; *l*, a contact-breaking disk on the shaft *m* of the wheel *e*; *n*, a brush making connection between the disk *l* and wire *k*; *o*, a switch, and *r* the battery. The connection between the motor and contact-disk is through the metallic parts of the machine; but they are also connected by a wire *p* for greater certainty of a good connection. Armature *i* has a pinion *q*, that gears with an intermediate wheel *s*, which has a pinion *t*, that gears with the last wheel *e* of the train for driving the plate-shifting disk. 60

One of the battery-wires is made to connect through the contacts *u v*, one of which *v* is a spring and is connected to the platinum wire *w*, stretched across the escape-pipe *y* of the lantern, and so adjusted that when expanded by the heat of the lantern it allows contact *u* to bear against and make connection with contact *v*; but when the lamp burns out or is extinguished wire *w* will contract and separate the contacts, and thus prevent waste of the battery-power whenever the rest of the apparatus may happen to be inoperative for lack of the light. The importance of this will be appreciated when it is considered that the apparatus, being automatic, is to be left without attendance after being started, so that whenever the lamp might burn out the apparatus would continue to run without such automatic circuit-breaker. 65

The purpose of connecting the disk *l* in the circuit is to connect an electric tapping-call *2* with the battery through the shunt-circuit *3 4*, to be actuated by the battery in the intervals while the plate-shifting disk is at rest, said tapper consisting of the magnet *5* and the lever-armature *6*, the latter having a hammer-head *7* and being placed in suitable proximity to the glass plate *8* of the window to tap it suitably for calling the attention of passers-by when actuated by the electric current. The disk *l* has two notches *9* for breaking the direct connection of the motor through brush *n* while shunting the current through the tapper, and it carries two contact-pieces 70

10, which then make connection through the tapper by the brushes 11, said contacts 10 being insulated from the disk 1 and shaft *m* by the interposed non-conducting block 13. They are connected together by the wire 14. Two of these make-and-break contacts are provided for the shunt-circuit to actuate the tapper alternately with the movements of the plate-shifting disk, which is shifted twice to each revolution of wheel *e*.

I claim—

1. The combination of advertising apparatus consisting of the stereopticon, intermittently-shifting plate-carrying disk, electric motor, reducing-train connecting the motor and plate-shifting disk and actuating said plate intermittently, and the thermostatic circuit-breaker located in the heat-passage of the lantern and connected in the motor-circuit, whereby the said circuit is automatically broken by the burning out of the lamp, substantially as described.

2. The combination of advertising apparatus consisting of the stereopticon, intermittently-shifting plate-carrying disk having the plates arranged in a circle in the margin of the disk, radially-projecting driving-arms

of the disk, the electric motor and reducing-train for actuating the disk, one or more arms of the terminal wheel of the reducing-train connecting with the arms of the disk for intermittently actuating said disk, and the automatic thermostatic circuit-breaker located in the heat-pipe of the lantern and connected in the motor-circuit, whereby said circuit is automatically broken by the burning out of the lamp, substantially as described.

3. The combination of advertising apparatus consisting of the stereopticon, intermittently-shifting plate-carrier, electric motor, and driving-train actuating said disk, the electric window-tapping call, and the shunt-circuit and shunt devices making the electric circuit through the tapper in the intervals of the movement of the plate-shifter, substantially as described.

Signed at New York city, in the county and State of New York, this 20th day of May, A. D. 1891.

WILLIAM G. SPIEGEL.

Witnesses:

W. J. MORGAN,
W. B. EARLL.