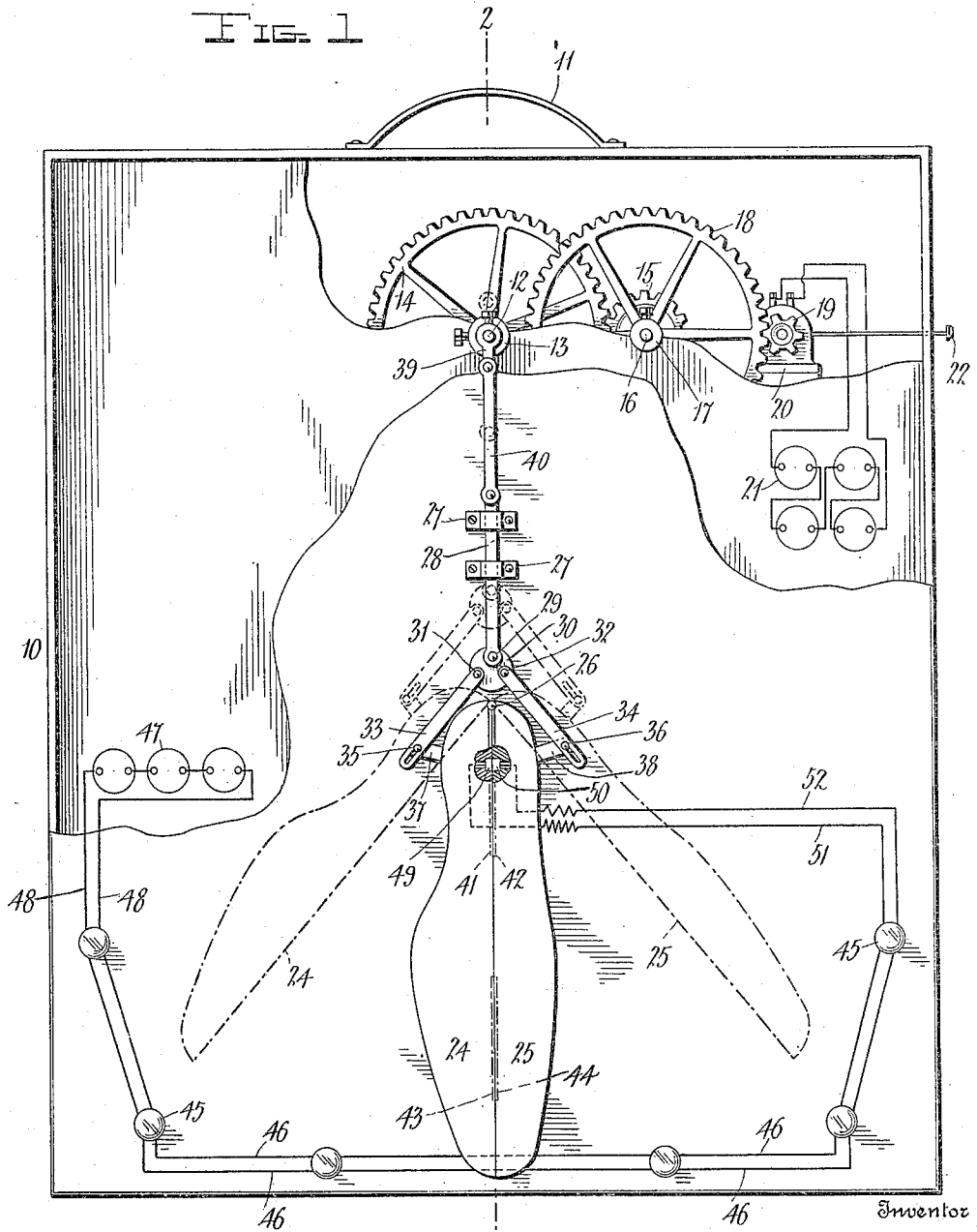


W. W. LILES.
MOVING SIGN.
APPLICATION FILED OCT. 12, 1908.

957,352.

Patented May 10, 1910.

2 SHEETS—SHEET 1.



Witnesses
J. H. B. B. B.
C. H. Woodward

Inventor
William W. Liles
By *Charles Chandler*
Attorneys

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2 SHEETS—SHEET 2.

FIG. 2

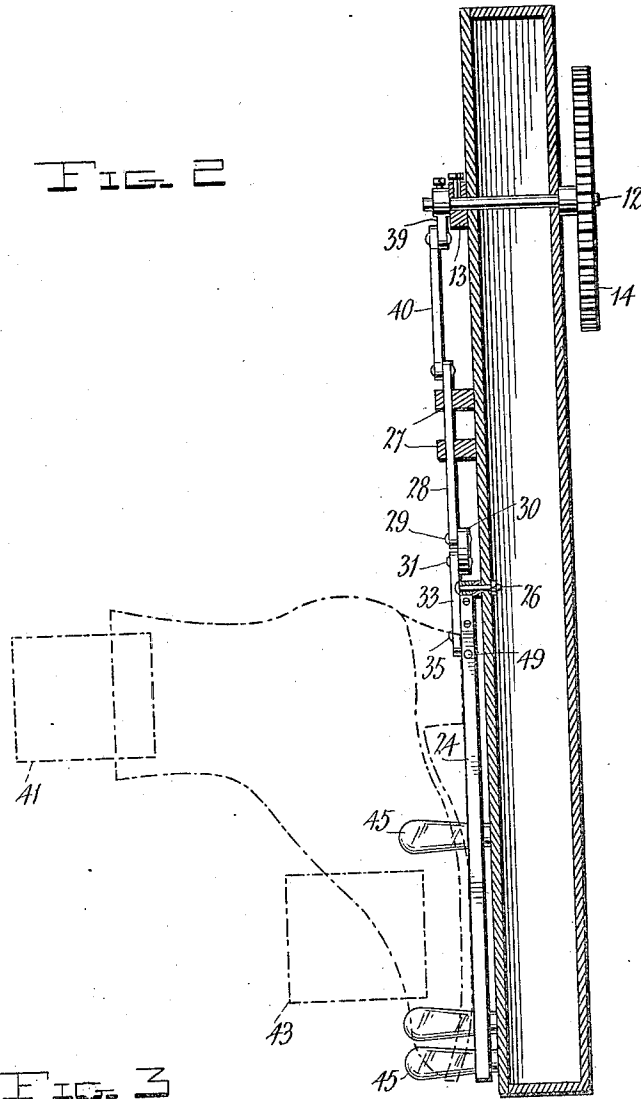
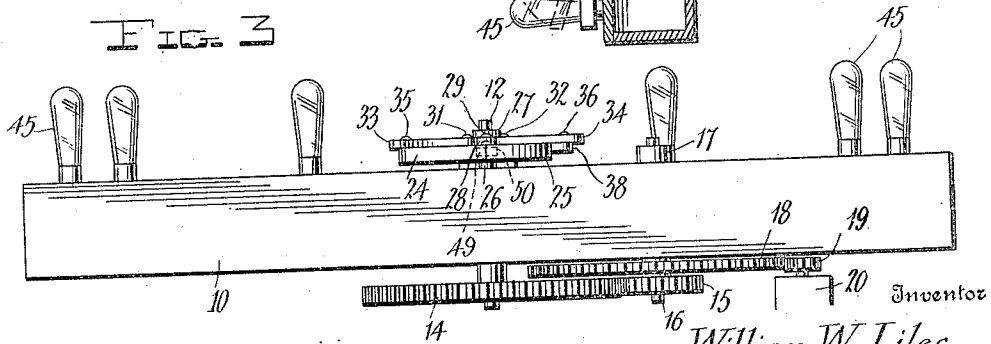


FIG. 3



Witnesses

C. N. Woodward

By

William W. Liles

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM W. LILES, OF ST. LOUIS, MISSOURI.

MOVING SIGN.

957,352.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed October 12, 1908. Serial No. 457,408.

To all whom it may concern:

Be it known that I, WILLIAM W. LILES, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Moving Signs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it
10 appertains to make and use the same.

This invention relates to movable display signs, of the class wherein a motor is employed to cause intermittent movement of a display article, to attract the attention of
15 the passerby, and has for one of its objects to improve the construction, and increase the utility and efficiency of devices of this character.

Another object of the invention is to provide a simply constructed device which will cause an object to be moved intermittently and signs to be likewise intermittently exhibited in connection with the moving object.

Another object of the invention is to provide a simply constructed device of this character operative by an electric motor in conjunction with a plurality of electric lamps which are automatically cut in and
30 cut out of circuit with the motor by the movements of the object.

With these and other objects in view the invention consists in one or more objects mounted for movement, a motor, and means
35 whereby the motor intermittently causes the movements of the object.

The invention further consists in two objects connected for movement toward and away from each other, a motor, and means
40 whereby the motion of the motor is communicated to the objects to produce the movements of the same.

The invention further consists in two objects mounted for movement toward and
45 away from each other, an electric motor, a plurality of electric lamps connected in circuit, means whereby the motion of the motor causes the intermittent movement of the connected objects, and means whereby the
50 circuit of the electric lamps is alternately opened and closed by the movements of the objects.

The invention further consists in certain novel features of construction as hereafter

shown and described and then specifically 55 pointed out in the claims.

The improved device may be employed for moving objects of various kinds, but for the purpose of illustration is shown applied to moving the representation of a pair of shoes, 60 but it will be understood that the invention is not necessarily limited to any specific object, and may be readily adapted to various objects which it is designed to advertise or display.

In the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a front elevation of the improved device. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a plan view of the im- 70 proved device.

The improved device comprises a supporting structure, or platform, which may be of any required size and of any suitable material, but will preferably be in the form of a 75 casing 10 having a handle 11 whereby it may be transported readily, and adapted to be located in a show-window or other like locality. Mounted for rotation upon the casing 10 is a drive shaft 12 having a collar 80 13 whereby it may be supported upon the casing. The shaft 12 is provided with a gear wheel 14 engaging with a gear pinion 15 on an intermediate shaft 16, the latter mounted for rotation on the casing and provided with a supporting collar 17. 85 The shaft 16 is likewise provided with a gear wheel 18 engaging with a gear pinion 19 upon the shaft of an electric motor 20, the latter arranged to be driven from a suitable 90 battery represented at 21, of the ordinary construction. Connected to the motor 20 is a shifter rod 22 whereby a switch may be actuated to open and close the circuit which governs the motor. By this simple means 95 it will be obvious that the shaft 12 is rapidly rotated when the motor is connected thereto.

The object to be displayed, for the purpose of illustration, two shoes 24—25 are arranged upon the casing 10 and mounted 100 to swing from a common pivot 26 located at the heel portions of the shoes.

Slidably mounted in bearings 27 and spaced apart upon the casing 10 is a rod 28 coupled at 29 to a plate 30, and coupled at 105 31—32 to the plate 30 are rods 33—34, the free ends of the rods being coupled at 35—36 to brackets 37—38 connected respectively to

the shoe members 24—25. Connected to the shaft 12 is a crank 39, and connected between the crank 39 and the adjacent end of the rod 28 is a connecting member 40. By this arrangement it will be obvious that when the shaft 12 is rotated the rotary motion of the shaft will be transmitted through the member 40 to the rod 28 and thence through the plate 30 to the rods 33—34, thereby reciprocating the shoe members 24—25, and causing them to open and close at the toe ends once at each revolution of the shaft. The gears 14—18 and the pinions 15—19 will cause the relatively rapid motion of the motor to be transmitted with a slow speed to the shaft 12 and thence to the shoes 24—25, so that the latter will open and close at relatively long intervals. Any suitable advertising matter may be associated with the moving figures of the shoes, as for instance display cards 41—42 at the heel portions of the shoes and display cards 43—44 at the sides of the shoes.

Electric light bulbs are arranged at suitable intervals upon the casing 10, and connected by suitable wiring 46. Suitable batteries 47 are arranged within the casing 10 and connected by suitable wiring 48 to the electric light bulbs. Connected to the shoe figure 24 is an electric contact 49, and connected to the shoe figure 25 is an electric contact 50, the two contacts being adapted to engage when the figures of the shoe are in close relations and to be separated when the shoe figures are separated. The contacts 49—50 are connected by wires 51—52 in circuit with the electric bulbs 45, as shown. By this means when the shoe figures 24—25 are brought in close relations as shown in full lines in Fig. 1, the contacts 49—50 will close the circuit through the light bulbs and cause them to be illuminated, and when the shoe figures are separated as shown by dotted lines in Fig. 1, the circuit of the bulbs will be broken and the lights extinguished. By this means the lights will be alternately

displayed and extinguished as the shoes are operated and thus attract attention to the figures displayed.

The figures may be varied to any required extent to display articles of various kinds without material structural changes in the details of the device, and it will be understood that it is not desired to limit the invention to any specific article to be displayed, and modifications and changes in the device may be made within the scope of the appended claims without departing from the principle of the invention or sacrificing any of its advantages.

The casing 10 and other parts may be of any required size, or of any required material, and the casing may be located at any desired point in the show-window or other locality.

What is claimed is—

1. A device of the class described comprising a plurality of electric lamps connected in circuit, two objects movable toward and away from each other, contacts carried by said objects and engaged when said objects are in one position, said contacts being connected in circuit with said lamps, and means for actuating said objects.

2. In a device of the class described, a supporting structure, a plurality of electric lamps connected in circuit, two objects movable upon said structure, a bar arranged for movement upon said structure, a bracket connected to each of said objects, links connected respectively between said bar and objects, contacts carried by said objects and connected in circuit with said lamps, a motor, and connecting means between said motor and bar.

In testimony whereof, I affix my signature, in presence of two witnesses.

WILLIAM W. LILES.

Witnesses:

JOHN BAUMUNK,
JOHN NICKEL.