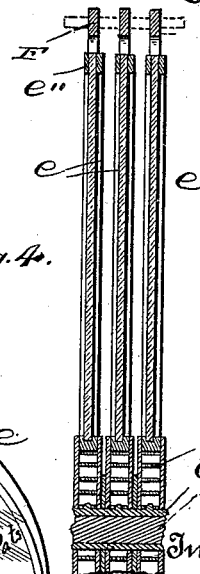
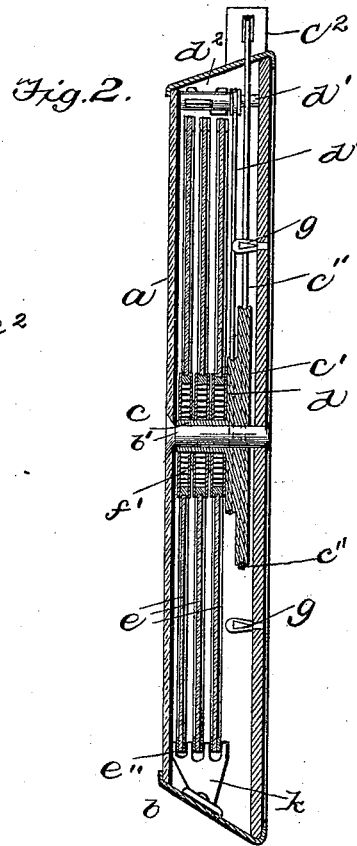



A. G. MACDONELL.
ADVERTISING DEVICE.

Patented Feb. 14, 1893.



 Inventor
A. S. Macdonell
By Alexander Davis
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UNITED STATES PATENT OFFICE.

ALLAN G. MACDONELL, OF NEW YORK, N. Y.

ADVERTISING DEVICE.

SPECIFICATION forming part of Letters Patent No. 491,900, dated February 14, 1893.

Application filed September 3, 1892. Serial No. 444,991. (No model.)

To all whom it may concern:

Be it known that I, ALLAN G. MACDONELL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a front elevation of my invention; Fig. 2 a vertical sectional view thereof; Figs. 3 and 4 partial sectional views showing details hereinafter described, and Fig. 5 a sectional view showing one form of the advertising wheels, having a less number of advertising panels than is shown in Fig. 1.

This invention has relation to that class of advertising devices covered by my former patent No. 283,408—dated August 21, 1883, wherein a series of advertising-wheels having sector-shaped advertising spaces are caused to automatically rotate intermittently beneath or behind a face plate (preferably a table-top) having alternating transparent and opaque radial sectors, whereby all the advertisements on the different wheels are successively displayed at intervals under the transparent sectors of the face plate, as hereinafter more fully described.

The present invention has for its objects the improvement of the construction of the device, rendering it capable of displaying a greater number of advertisements, and better adapt it for other purposes than table tops, as fully hereinafter described.

In the drawings annexed, *a* designates the circular face plate of the device, whose surface is divided off into an even number of radiating sectors, these sectors being made alternately transparent and opaque, the transparent ones being designated by *a'* and the opaque ones by *a''*. There may be eight of these transparent sectors, as shown in Fig. 1, or any greater or less number, as is evident. This face plate may be made entirely of glass or the glass transparent sectors may be made to alternate with wooden or metal opaque sectors set in between them, as may be desired. To the rear side of this face plate is secured a circular closed casing *b*, which is provided at its upper edge with a pair of eyes *b''* to enable it to be hung upon a wall or other sup-

port. Instead of hanging the frame upon a wall, however, it may be set upon an easel or supported in any other way desired. Passing through the center of the casing is a non-rotatable rod *b'*, upon which is loosely journaled a hollow shaft or sleeve *c*, within the casing made integral with (as shown) or secured on one end of this shaft is a wheel or pulley *c'*, which is driven by any suitable motor, located conveniently. In the present instance, this wheel is rotated by a cord *c''*, which is driven by a small electrical or other motor *c²* secured on top of the casing. Secured to the same sleeve or integral with it, alongside said pulley, is another pulley *d*, from which extends a belt or cord *d'''* running over a small pulley on a short shaft *d''* journaled in the casing, near its upper edge, said shaft being provided with a series of tappets *d²*, all of which, except one, are of sufficient width to engage two of the pawls at once and are equally spaced over the periphery of the shaft.

Journalled loosely upon the shaft or sleeve *c* are the advertising wheels *e* which are provided, each, with a suitable number of radiating transparent sectors *e'*, which contain the advertising or other matter which it is desired to display, and are of the same size and shape of the sectors of the face-plate, with which they are adapted to register during the operation of the device. These wheels may be made of open frame-work and have the glass sectors or panels slid in over segmental openings therein, every alternate opening being left open as shown in Figs. 3 and 4, or as is preferable they may consist simply of radial glass sectors having their inner ends inserted in openings in hubs or center pieces and their outer ends supported in a ring *e''*, as shown in Fig. 5. In either case the transparent segments are made removable so that the advertisements may be readily changed at will without removing the wheels, the casing being provided with one or more doors or openings *e²* for this purpose. The periphery of each wheel is provided with a suitable number of notches, with which engage the pawls *f* pivoted within the casing at its upper end, the forward ends of these pawls being extended so as to project into the respective paths of the tappets on the shaft *d''*. The

wheels are journaled loosely on the sleeve except that they are each connected to the same by a convolute spring f' , which serves to rotate the wheels when they are released by the

5 pawls F.

The operation of this invention is as follows: The motor imparts a very slow motion to the hollow shaft through the medium of the cord and pulley, whereby the tappet-shaft
10 d'' is caused to rotate in the same direction. As the tappet-shaft rotates, its tappets lift the pawls far enough to become disengaged from the wheels and permit the springs of the same to rotate them the distance of one
15 notch. The disposition of the tappets of the shaft is such that it disengages the pawls from the wheels successively so that the wheels have a successive intermittent motion, which will cause all the wheels to expose their advertisements successively, all the advertisements
20 of one wheel being exposed at each interval.

As will be observed, during the operation of the machine but one wheel at a time can
25 be exposed; therefore, should the front wheel be exposed the other wheels would be hidden by the opaque sectors of the face plate. The first movement of the tappets would be to raise the first and second pawls simultaneously and thereby permit the first wheel to become hidden and the second wheel to come into
30 view, while the next operation of the tappets would be to simultaneously raise the second and third pawls and permit the second wheel to become hidden and the third wheel to become
35 exposed, and so on until all the wheels that may be employed are exposed. When the last wheel of the series has remained exposed long enough, the tappets raise the last and the first
40 pawls simultaneously and permit the last wheel to become hidden and the first wheel to come into view again. Thus it will be seen that at no time is there more than one wheel intervening between the transparent segments of the face-plate and the light behind
45 or beneath the same.

The tappets are so constructed and arranged that they release the pawls about the same instant the latter release the wheels,
50 which enables the pawls to engage the next succeeding notches and prevent the wheels rotating too far.

The mechanism is so timed or constructed that each set of advertisements will remain
55 exposed the desired length of time.

It will be observed that the springs are kept wound up by continued rotation of the sleeve or shaft.

To clearly show the advertisements, especially in the dark, electric lamps g , or other illuminating means, are secured to the rear side of the casing behind the advertising wheels, as shown in Fig. 2. This illuminating arrangement will enable a greater number of wheels to be used and show up the advertisements to better advantage.
65

In order to prevent the advertising wheels

from impinging against each other during operation, a series of guides k may be secured on the interior of the casing and adjusted so as to project in between the edges of the wheels as shown in Fig. 2. Any number of these guides may be used that are found necessary.

Inasmuch as the display matter on the segments may be brought to view by simply partially rotating the wheels back and forth a sufficient distance to display and withdraw the segments, I do not wish to be confined to the means for causing the continuous or complete rotary motion described.
80

It is evident that the location of the tappet and pawls is not an essential feature of the invention; for instance, they may be located on the exterior of the casing and
85 grouped in a box with the motor c^2 and the whole may be covered by some ornamental or emblematic figure, such as an eagle, as shown in Fig. 1. This arrangement is preferable as it enables the advertising wheels to be made nearly as large as the face-plate.
90

Having thus fully described my invention what I claim is:

1. The combination of a face-plate constructed of alternating opaque and transparent sections, a series of advertising wheels
95 journaled behind this face-plate and provided with transparent panels containing the display matter, and an illuminating device arranged behind said wheels, substantially as described.
100

2. The combination of a face plate having alternating opaque and transparent sections, a shaft journaled behind the said face-plate and carrying a series of advertising wheels,
105 springs for actuating said wheels independently of the shaft, and means for operating the shaft and intermittently releasing the wheels, substantially as described.

3. The combination of a face-plate having alternating opaque and transparent sections, a shaft journaled behind the face-plate and carrying a series of advertising wheels, a spring securing each wheel to the shaft and serving to actuate it when released, pawls engaging the wheels and normally holding them
115 against the action of the springs, and means for automatically disengaging the pawls at intervals, substantially as described.

4. The combination of a casing provided with openings for the withdrawal of the panels and having a face-plate constructed as described, a series of advertising wheels adapted to rotate behind the face-plate and carrying a series of radially removable transparent panels, and an illuminating device behind the panels, substantially as described.
125

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

ALLAN G. MACDONELL.

Witnesses:

E. J. SHEA,

CHAS. BEHRMAN.