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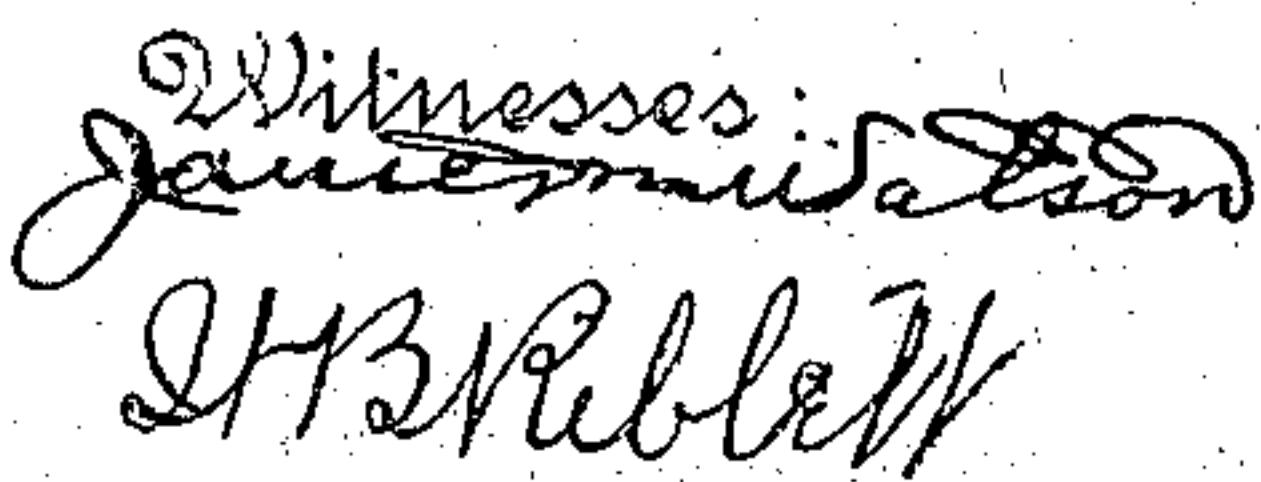
2 SHEETS—SHEET 1.



Charles F. de Siria

932,725.

2 SHEETS—SHEET 2.



Charlie F. de Jong Inventor

UNITED STATES PATENT OFFICE.

CHARLES F. DE SORIA, OF NEW YORK, N. Y.

ADVERTISING APPARATUS.

932,725.

Specification of Letters Patent.

Patented Aug. 31, 1909.

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To all whom it may concern:

Be it known that I, CHARLES F. DE SORIA, citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Advertising Apparatus, of which the following is a specification.

This invention relates to advertising devices, having particular reference to apparatus wherein the matter to be displayed, such as pictures, printed intelligence advertisements and the like, is carried upon an endless traveling body or surface built up of a series of panels arranged closely side by side and presenting to casual inspection a practically unbroken flat expanse.

The present invention aims to produce an apparatus capable of being built on a large or small scale and suitable for out of door use as well as indoor use, and which may be rendered as conspicuous and attractive at night as by day.

A further object is to increase the capacity of the apparatus.

The invention contemplates the use of elongated hollow polygonal panels capable of rotation axially and having display matter painted or otherwise impressed upon each of the several outer surfaces thereof; said surfaces being of transparent or translucent material or of opaque material, perforated in such manner that the display matter thereon may be rendered visible at night by lights located on the inside of said hollow panels.

In the accompanying drawings Figure 1 is a front elevation of an apparatus embodying my invention; Fig. 2 is a section, enlarged on line X X of Fig. 1, the middle portion of said figure being broken out; Fig. 3 is a detail illustrating a means for supporting a sprocket chain; Fig. 4 is a section on line Y Y of Fig. 2, showing two sprocket wheels and two panels in elevation; Fig. 5 is a section, still further enlarged on line Z-Z of Fig. 2; Fig. 6 is a top plan view of a three sided hollow panel; Fig. 7 is a transverse section of the same, and Fig. 8 is a detail. Fig. 9 is a detail perspective view to show the electrical connections of the bus bars.

Referring to the drawings by letter, A represents an elongated rectangular housing

or casing closed on all sides save the front, which is provided with a rectangular window *a* extending nearly the whole length thereof. I have shown a glass covering *A'* for this opening, but the glass is not at all an essential feature of the invention and may be omitted whenever its use is undesirable for any reason, or impracticable on account of the size of the apparatus.

B and C represent two vertical shafts mounted in bearings *A*² at opposite ends of the housing A and each having two sprocket wheels spaced apart thereon and represented by *b*, *b*, and *c*, *c*, respectively. One of said shafts is connected with the driving shaft F of a suitable motor not shown.

D and D' denote endless sprocket chains arranged in superposed parallel relation and connecting corresponding pairs of sprocket wheels as clearly indicated in the drawings, there being elongated tracks, guides or supports *d*, *d*, situated between the sprocket wheels to prevent undue sagging of said chains. These guides or supports are shown clearly in Figs. 3 and 5 but, for the sake of clearness, are omitted from Fig. 2. The sprocket chains D and D' are of usual construction, but the links thereof are joined together by hollow thimbles *d'* instead of solid pins, these hollow thimbles affording receiving sockets *d*² for a purpose which will presently appear.

The "panels" hereinbefore referred to are represented as a whole by the letter E. Referring particularly to Figs. 5, 6 and 7, it will be seen that the panels comprise two similar end pieces or heads *e* and *e'* of triangular shape, a central rod or "back-bone" *e*² connecting said heads together, and three flat side plates, *g*¹—*g*² and *g*³ also extending from head to head, the whole forming a hollow polygonal body, which in cross-section is a perfect equilateral triangle. The side plates *g*¹, *g*² and *g*³ are preferably detachable from the panels E as indicated by the screws *f* in Figs. 4 and 5, and are intended to carry the matter to be displayed. The side plates of the panels are of such a character that the display matter M on the outer surface thereof will be visible at night whenever the interior of the panel is illuminated. While there are various obvious ways of reaching this result, I have illustrated the side plates as made of opaque ma-

terial and having the letters, pictures or other matter outlined by rows of perforations m . Both of the heads e and e' of each panel are provided with outwardly projecting cylindrical studs e^4 and inwardly extending triangular bosses e^5 , the former entering the thimbles d' in the links of the chains D and D', and the latter serving as supports for the several banks of electric lamps which I propose to employ. There are also three equi-distantly disposed holes e^{10} in each of said heads. It will be observed that the panels are arranged upon the chains in endless series and that there is no appreciable space between the corners of adjacent panels; the panels being arranged at equal distances apart, the distance between the axes of the several panels being equal to the width of one of the sides of a panel so that when the panels are traveling in approximately straight paths they stand edge to edge and present a substantially unbroken, flat surface. Power being applied to shaft B the panels at the front of the housing will be caused to move along the window or opening in the housing, the lower edges of the panels moving in contact with a rail N which prevents displacement or fluttering of the panels in transit. There is a similar rail N' at the rear of the housing and curved guides n' at the ends thereof.

R represents a detent located at one end of the apparatus and adapted to engage each panel successively as it passes and turn it on its axis so that another of its surfaces will be presented to view on the next trip of said panel across the front of the machine. The guide n' is omitted where the detent R is located in order to afford room for the panels to rotate.

Obviously the housing A may be provided with a window at the rear as well as the front as indicated at A³ Fig. 2. It will also be understood that the panels may be arranged to move along the window in either direction.

In order to illuminate the panels, I have provided two elongated conductors or bus-bars S and S' arranged inside the housing, one near the upper and the other near the lower edge of the window or opening a , each bar, of course, being properly connected up with a suitable source of electric current. Each side of each panel is provided with a pair of spring pressed contacts s and s' arranged preferably in the heads of the panels and adapted to engage said bus-bars S and S' respectively. The inner ends s^3 of the contacts are enlarged and serve to limit the action of the springs s^2 , as clearly disclosed in Fig. 5 and also afford means for electrically connecting said contacts with the lamps.

The lamps L may be arranged within the panels in any desired manner. I prefer,

however, to employ strips L' of ordinary molding, such as is commonly used in electrical wiring, and apply a row of lamps thereto in the usual way, the feed wires t and t' for the lamps projecting from the opposite ends of said molding. A bank of lamps arranged in this manner may be readily applied to the panel by simply dropping the same through one of the openings, e^{10} and hanging it upon the hook e^{11} projecting from the boss e^5 , there being an eye e^6 in the end of the molding for this purpose. So suspended the molding will lie flat against the bosses e^5 as shown, and require no further support, and the projecting wires may be readily soldered or otherwise connected to the contacts s and s' , the holes e^{10} affording access to these parts for this purpose.

I prefer to use three banks of lamps, one for each side of the hollow panel, and have the several banks colored differently in order to vary the light effects, but it is obvious that fewer lamps might be found practical.

To facilitate repairs and the removal of side plates, lamps, etc., one end of the housing is hinged to the main body and is adapted to be swung out to expose the inner mechanism, and since this hinged portion A⁵ includes a part of the roof and floor of the structure, it is clear how the long banks of lamps may be removed as a whole and replaced readily. By rotating the shaft B slowly, each side of every panel may be exposed for inspection and repair.

It may be desirable at times to "flash" the lights, which effect is attainable by cutting off the current from the lamps for a long or short period and then cutting it in again. I have accordingly provided the clips w of insulating material which may be applied to the bus-bars S and S' at desired intervals. These clips may be long or short as required and are preferably of fiber-covered metal capable of being sprung upon the bus-bars, as best indicated in Fig. 8. The clips are slidable upon the bus-bars and may be adjusted to any desired position thereon by hand or otherwise.

There is a distinct advantage in the use of hollow polygonal panels. Not only on account of their adaptability for illumination, but for their increased surface capacity. A sign of say, thirty (30) feet running length, if made in accordance with my invention, may contain one hundred and eighty (180) feet of advertising space, all of which may be presented to view in a short space of time.

I prefer to use three sided panels for the reason that they admit of an arrangement that will present to view a flat and apparently unbroken surface for the advertising matter. Other shapes, such as hexagonal or octagonal would not present so smooth a

surface, and, moreover, would require to be spaced farther apart in order to be rotated axially.

I claim:

5 1. In apparatus for displaying matter the combination of a housing having an elongated window or opening therein; a pair of endless flexible carriers spaced apart and mounted in said housing, means for driving
10 the same; said carriers being arranged to travel in a direction parallel with the extent of said window or opening; a series of hollow polygonal panels axially supported by and between said carriers and having display
15 surfaces adapted to admit of the passage of light rays, means for axially turning each panel individually at a desired point in its travel, means for locking it against such turning at other points, and means for illuminating the inside of said panels.

2. In apparatus for displaying matter the combination of a housing having an opening or window therein, a series of hollow panels arranged in endless series within said housing and adapted to pass across said window
25 or opening, the sides of the panels admitting of the passage of light rays, elongated stationary conductors arranged along the path of movement of said panels, contacts carried by said panels and adapted to drag
30 against said conductors, and lamps located within said panels and in electrical connection with said contacts.

3. In apparatus for displaying matter, the combination of a housing having an elongated opening or window therein, a series of hollow three sided panels arranged in endless series within said housing and adapted to pass across said opening or window;
40 the several sides of each panel admitting of the passage of light rays there-through and having display matter applied thereto; elongated conductors arranged in the path of travel of said panels, three sets

of lamps located within each panel and means whereby the several sets may be illuminated successively.

4. In apparatus of the character described, a hollow panel comprising a central supporting member, two angular heads carried
50 by opposite ends of said member, and having axial studs projecting outwardly therefrom, flat display sides detachably secured to said heads and adapted to admit of the passage of light rays, interiorly located electric
55 lamps, and distinct sets of exteriorly located current collectors on the sides, all said sets being electrically connected with said lamps.

5. In apparatus of the character described the combination of a housing having an elongated window, a series of hollow traveling panels in said housing, said panels having
60 interiorly located electric lamps and exteriorly located display matter capable of being illuminated by said lamps, an electric conductor located in the path of travel of said panels and current collectors carried by
65 said panels.

6. In apparatus of the character described the combination of a housing having an elongated window, a series of hollow traveling panels in said housing, said panels having
70 interiorly located electric lamps and exteriorly located display matter capable of being illuminated by said lamps, a stationary electric conductor located in the path of travel of the panels, current collectors carried by said panels and one or more current
75 interrupters applied to said conductor and adjustable longitudinally thereon.

Signed at New York in the county of New York and State of New York this 19th day of March A. D. 1907.

CHARLES F. DE SORIA.

Witnesses:

JAMES M. WATSON,
W. B. RIBLETT.