

No. 760,242.

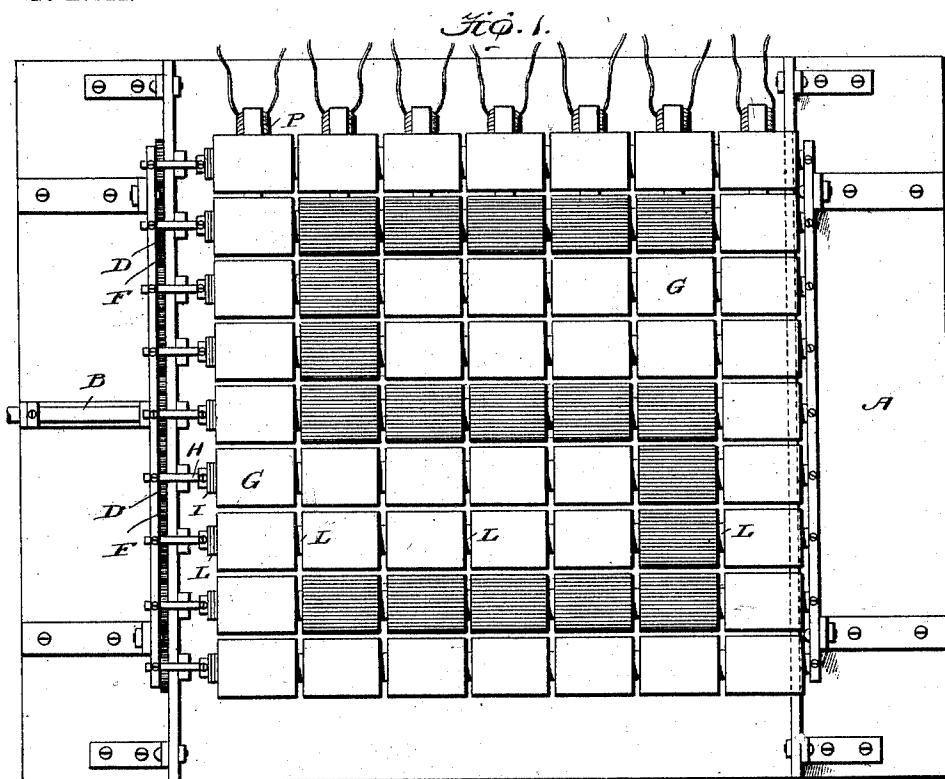
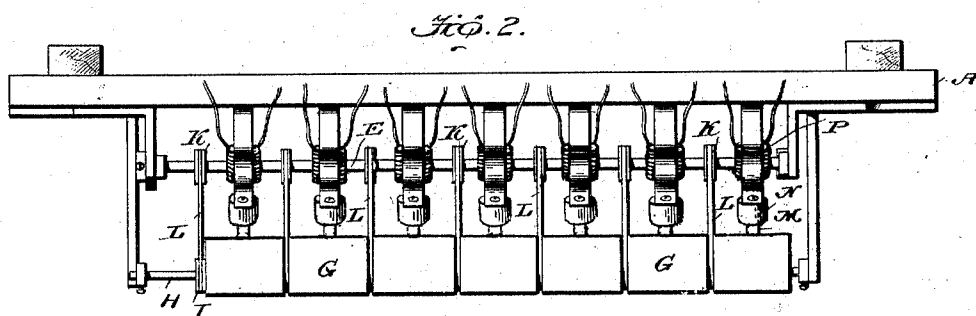
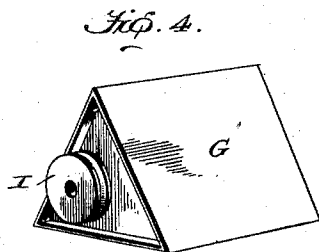
PATENTED MAY 17, 1904.

A. ST. C. PERRY.
ADVERTISING APPARATUS.

APPLICATION FILED AUG. 8, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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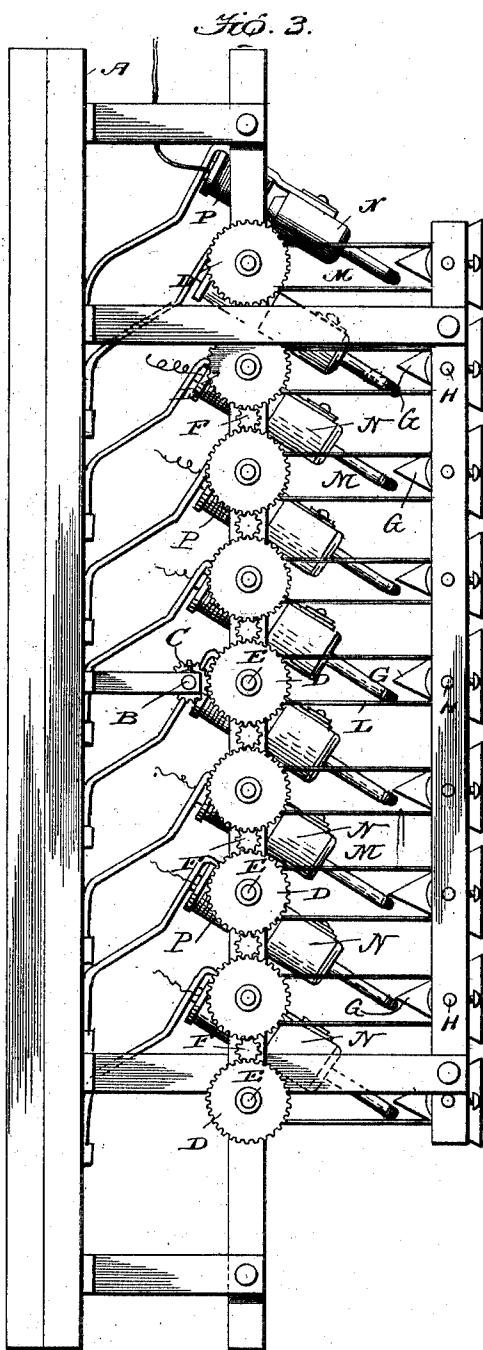
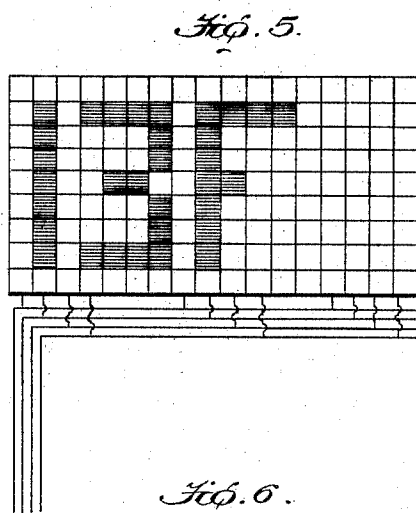
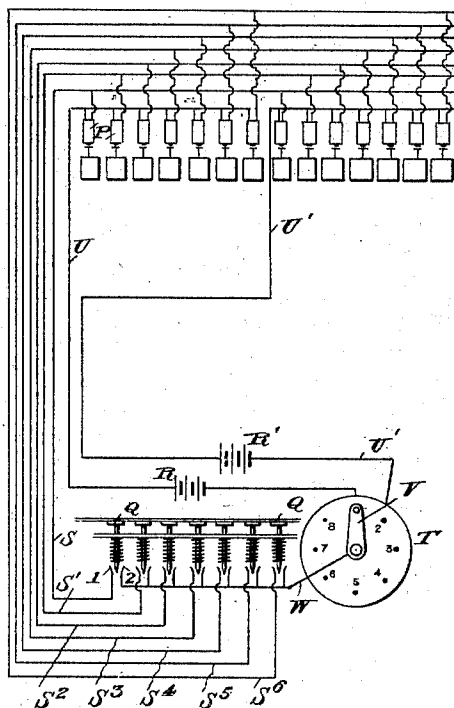
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR ST. CLAIR PERRY, OF LOS ANGELES, CALIFORNIA.

ADVERTISING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 760,242, dated May 17, 1904.

Application filed August 8, 1903. Serial No. 168,776. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR ST. CLAIR PERRY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented certain new and useful Improvements in Advertising Apparatus, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to improvements in advertising apparatus, the object being to provide an apparatus in which any number of advertising-signs may be successively displayed by day and by night as well when proper stationary lights are used with reflectors to throw the light upon the advertising-board.

The principal purpose effected by my invention is to do away with the complicated system of lights used in the ordinary electric advertising devices, which can only be used at night, and to provide a comparatively simple and effective electromechanical apparatus suitable for day as well as night advertising and capable of being run at an extremely slight cost as compared with those devices now in use.

In brief, the invention contemplates the use of a multiplicity of rotatable blocks arranged in vertical and horizontal rows, each block being triangular in shape, the respective faces being of different colors to produce the various effects desired, each block being a unit in itself which may be manipulated to form a part of a letter to be spelled out and displayed to the public, each block being controlled by a key on a keyboard within reach of the operator and being belted or otherwise loosely connected to a continuously-rotating shaft and being held from rotation by an electrically-operated stop, which when a key is operated is withdrawn to allow rotation of the unit, but which upon release of the key holds the unit in place with one of its flat faces exposed, the gearing between the unit and its driving-shaft being so arranged as to run idle when the stop is in action, but to rotate the unit when the stop is withdrawn, but being at all times, even when running idle, of sufficient

engaging power to hold the flat exposed face of its unit flush with the others.

The invention therefore consists, primarily, of an advertising device formed of a plurality of triangular units from which letters or characters may be built up, the faces of said units being all working faces and differently colored, so that varicolored signs may be displayed against opposing backgrounds.

Secondly, the invention consists of an advertising apparatus formed of a series of units, with means for rotating said units and electrically-controlled stops for said units.

Thirdly, it consists of an advertising apparatus formed of a series of units, with means for rotating said units, electrically-controlled stops for said units, said means for rotating the units embodying loose gearing which runs idly when the stops are engaging the units.

Fourthly, it consists of an advertising apparatus formed of a series of units, with means for rotating said units, electrically-controlled stops for said units, and means for rotating said units, including a series of continuously-rotating shafts and loosed riving connections between each shaft and the set of units opposite thereto.

Fifthly, the invention consists of an advertising apparatus having a plurality of sets of rotatable units, means for rotating said units, a key for each unit in a set, with electrical connections between the key and its unit adapted to be brought into operation by the depression of the key, a source of electrical energy, a switchboard in circuit with the key-wires, a line-wire leading from a terminal on the switchboard to each set of units, and separate wires from each line-wire to the electrically-controlled stop for each unit.

Sixthly, the invention consists in the various details of construction and arrangements of parts, all as hereinafter described, and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a portion of my advertising apparatus, a bank of sixty-three units being shown, their number being conveniently adapted to make, by proper selec-

tion of the units, a letter of proper size, leaving a sufficient number of units to form a background to render plainly visible the letter. Fig. 2 is a top plan view of Fig. 1. Fig. 3 is a side elevation of Fig. 1. Fig. 4 is a detail view of one of the units. Fig. 5 is a front view showing a portion of the units and wires, and Fig. 6 is a diagrammatic view of the system of electrical control for the units.

In the drawings, A represents a portion of the framework for supporting the advertising apparatus. B represents a driving-shaft operated from any suitable source of power, preferably an electric motor, which carries a gear-wheel C, meshing with and transmitting motion to the gear-wheel D on a shaft E, this shaft E extending the entire length of the apparatus and transmitting continuous rotation through gears F to gears D on like shafts E, of which there is one for each horizontal row of units.

G represents each unit, which for convenience in making letters of proper size with the desirable background are arranged seven in a horizontal row, with nine of such rows, making a total of sixty-three units for each letter, and as many sets may be arranged in line as desired or they may be arranged vertically or in any desired way. The units G are mounted to rotate upon fixed shafts H, and each unit has fixed upon one of its ends a belt-wheel I or pulley, to which driving connection is had by a suitable belt L with similar belt wheels or pulleys K on the shafts E. It will thus be seen that when the shafts E rotate they tend to transmit rotation to the units G. To prevent this rotation, except as desired to build up the proper letters from the units, a stop is provided back of each unit and adapted to come into engagement with the apex of the unit at the rear. It will be understood that there is a horizontal row of stops for every horizontal row of units. Each stop is composed, as herein shown, of a sliding gravity-rod M, moving in a bearing N, attached to the machine-frame and normally adapted to project into the path of the unit G to hold it in position. When it is in normal position, the gear relation between each shaft E and its row of units is such that the gear will slip, preventing any strain on the unit except just sufficient to keep a flat face of the unit exposed and keep all the faces flush. This stop M is controlled by the electromagnet P, which when energized attracts the stop which is its armature and allows the unit to rotate, deenergization of the magnet allowing the armature to return to normal position. Each unit G is of triangular shape, and the faces all differ in colors, one, for example, being red, one black, and one white, so that when a letter is spelled out it may be red on a black or white background, white on

a red or black background, or black on a red or white background.

It will be understood that various changes may be made in the construction and arrangements of the parts without departing from the spirit of my invention—as, for example, I do not wish to be limited to the exact construction and mode of operation of the unit-stops nor to the exact details of the gearing shown.

As a convenient means of controlling the armature-stops I have devised the means shown in Fig. 6, which forms a part of my invention. As shown, for each unit in each set there is arranged a key or push-button Q of ordinary construction, which closes a circuit in which a battery R, key-wire S, switchboard T, magnet P, and line-wire U are included. Suppose, for example, the left-hand key Q be depressed to close the circuit, the switch V being in the position shown, the current passes from the battery R through the wire U, magnet P, wire S, terminals 1 and 2, wire W, and switch to the battery, thus energizing the magnet, withdrawing the stop, and allowing one of the shafts E, through the gearing, to rotate the unit H until the key is released, when the unit remains stationary. In Fig. 1 the letter S is shown as having been built up in this way. To control the sets of units, it is not necessary to multiply the number of keys; but, as shown in Fig. 6, by shifting the switch V the wires S S' S'', &c., will come within the circuit of the battery R' and line-wire U', which leads from the second set of units, &c.

It will be understood that the number of units may be increased or diminished, as desired, and that the details may be varied without departing from the spirit of my invention.

It will of course be obvious and is not deemed necessary of illustration herein that lights might be provided with reflectors, so that the apparatus could be used for night exhibitions.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An advertising apparatus, composed of a plurality of triangular units from which letters or characters may be built up, the faces of said units being all working faces and differently colored, so that varicolored signs may be displayed against backgrounds of opposing colors, means for rotating said units, stops for said units and means for releasing the stops to allow the rotation of said units; substantially as described.

2. An advertising apparatus, composed of a plurality of triangular units from which letters or characters may be built up, the faces of said units being all working faces and differently colored, so that varicolored signs may be displayed against backgrounds of opposing colors, means for rotating said units, stops for said units, normally in engagement

therewith and electric apparatus for withdrawing said stops, and allowing the rotation of the units; substantially as described.

3. An advertising apparatus, composed of a plurality of triangular units from which letters or characters may be built up, the faces of said units being all working faces and differently colored, so that varicolored signs may be displayed against backgrounds of opposing colors, means for rotating said units, stops for said units and means for releasing the stops to allow the rotation of said units, said means for rotating the units embodying loose gearing which runs idly when the stops are in engagement with the units; substantially as described.

4. An advertising apparatus formed of a series of units, each unit mounted to rotate independently, a series of shafts corresponding to the series of units, and means for rotating said shafts, loose driving connections between each shaft and the separate units in the series corresponding thereto, a stop for each unit, means for releasing the stop and allowing the unit to rotate, said loose connection being arranged to run idle when the stop is in engagement with the unit; substantially as described.

5. An advertising apparatus comprising the driving-shaft, the shafts E, the gearing for transmitting motion thereto, the independently-pivoted units, the loose driving connections between each unit and the shaft E adjacent thereto, the stops normally engaging each unit, electrical devices for releasing each stop; substantially as described.

6. An advertising apparatus, comprising a

multiplicity of rotatable blocks, or units, arranged in vertical and horizontal rows, each block or unit being triangular in shape, the respective faces being of different colors to produce various effects, each block being a unit in itself, a keyboard having a key for each block, a stop controlling each block, and electrical devices controlled by the key for releasing the stop, a continuously-rotating shaft for each horizontal line of units, each unit of that line being loosely connected thereto by a driving connection running idle when the stop is in action, but operating to rotate the unit when the stop is withdrawn, and when running idle of sufficient power to hold the flat exposed face of the unit or block flush with other units; substantially as described.

7. An advertising apparatus having a plurality of sets of rotatable units, means for rotating said units, a key for each unit in a set, with electrical connections between each key and its unit, and adapted to be brought into operation by the depression of the key, a source of electrical energy, a switchboard in circuit with the key-wires, a line-wire leading from a terminal on the switchboard to each set of units, and separate wires from each line-wire to the electrically-controlled stop for each unit; substantially as described.

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

ARTHUR ST. CLAIR PERRY.

Witnesses:

CHAS. S. STURTEVANT,
GRACE P. BRERETON.