No. 739,635. PATENTED SEPT. 22, 1903.

J. S. ANDERSON.

ADVERTISING SIGN.

APPLICATION FILED DEC. 26, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

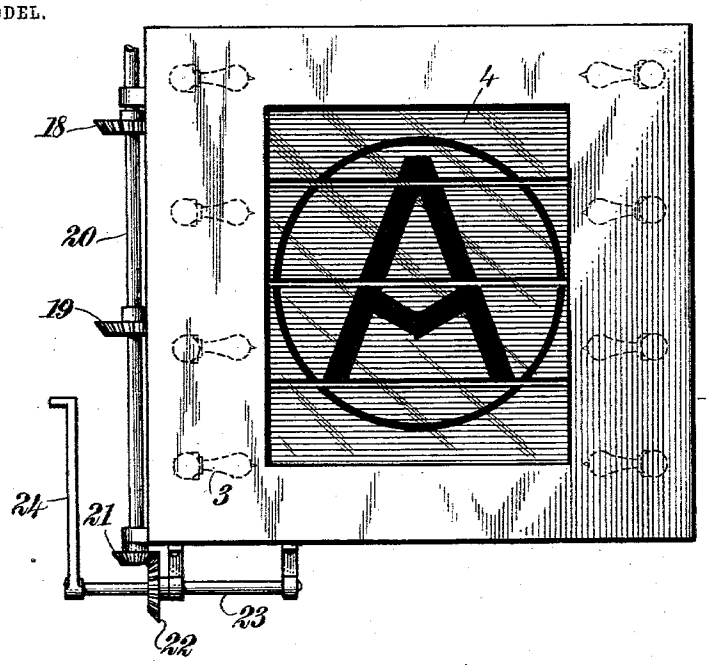


Fig. 1.

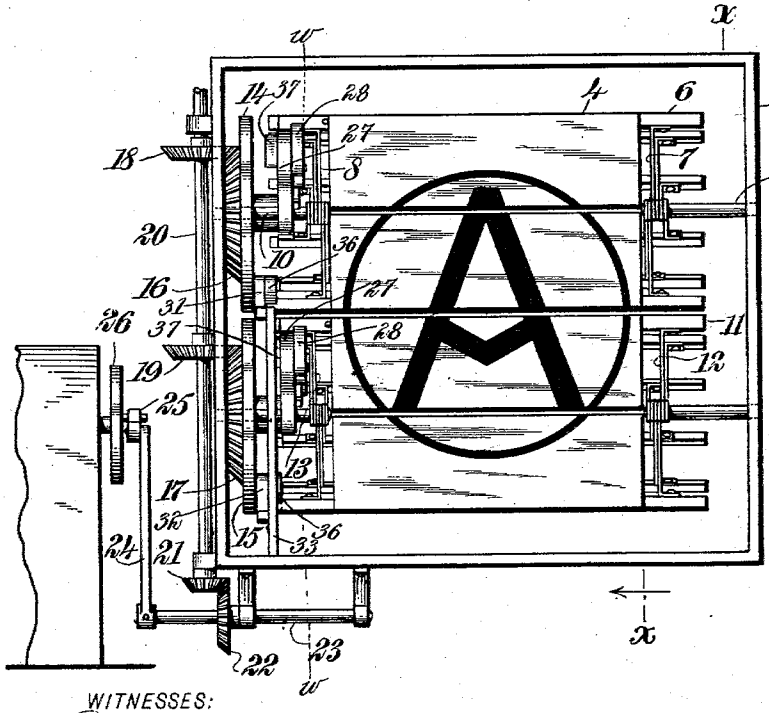


Fig. 2.

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C. R. Ferguson

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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 3.

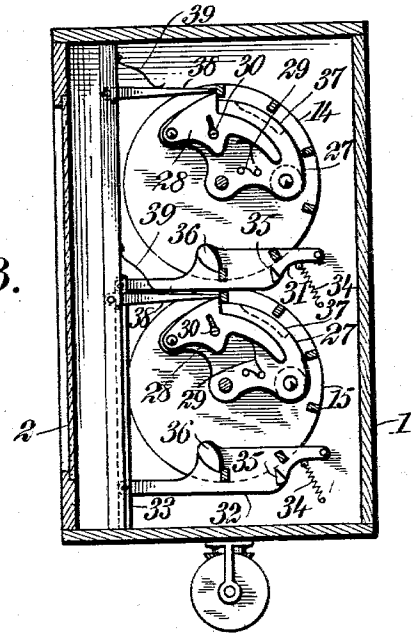


Fig. 6.

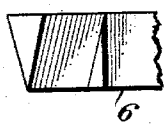


Fig. 4.

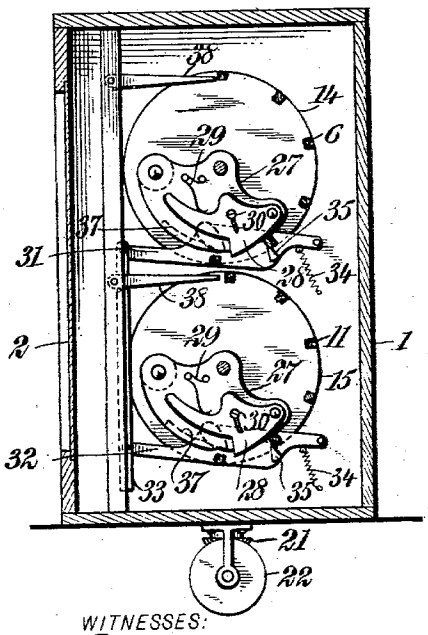
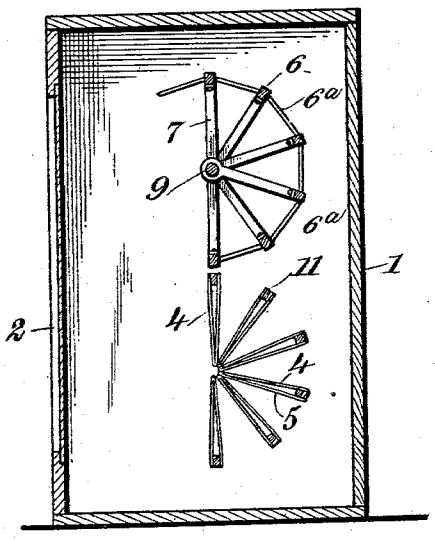


Fig. 5



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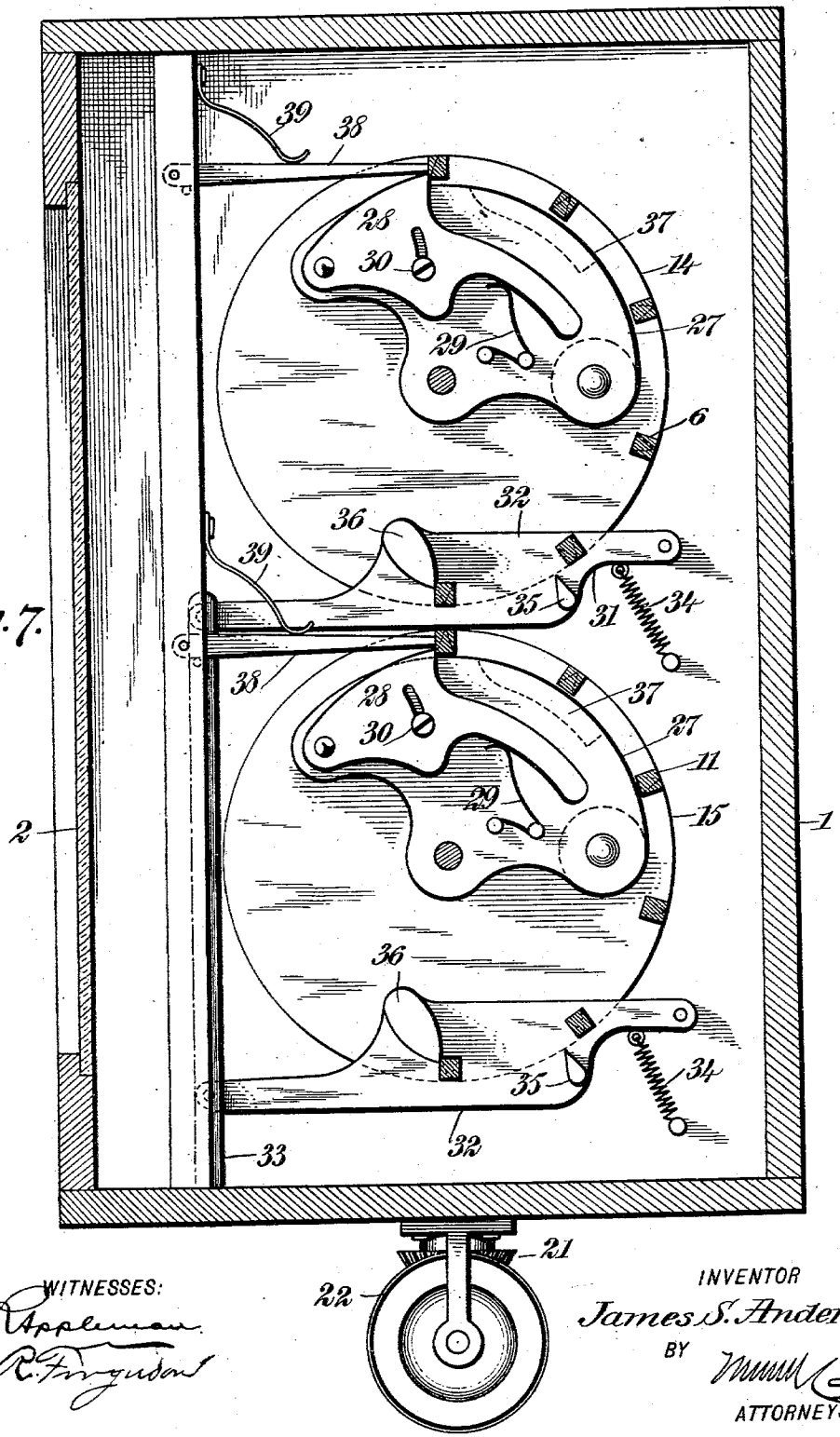
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NO MODEL. 3 SHEETS—SHEET 3.

Fig. 7.



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No. 739,635. Patented September 22, 1903.

UNITED STATES PATENT OFFICE.

JAMES S. ANDERSON, OF NEW YORK, N. Y.

ADVERTISING-SIGN.

SPECIFICATION forming part of Letters Patent No. 739,635, dated September 22, 1903.

Application filed December 26, 1902. Serial No. 136,560. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. ANDERSON, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Advertising-Sign, of which the following is a full, clear, and exact description.

This invention relates to improvements in advertising-signs, the object being to provide a device of this character of simple construction and operated by a suitable motor to display at intervals various advertising matter.

I will describe an advertising-sign embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of an advertising-sign embodying my invention. Fig. 2 is a front elevation with the front of the casing removed. Figs. 3 and 4 are sectional elevations on the line *w w* of Fig. 2, showing the operating parts in different positions. Fig. 5 is a section on the line *x x* of Fig. 2, the certain parts of the mechanism omitted to clearly show the arrangement of the leaves. Fig. 6 is a fragmentary detail of one of the leaf-carrying bars; and Fig. 7 is a similar view to Fig. 3, but showing the parts on a larger scale.

Referring to the drawings, 1 designates a casing of any suitable material having an opening at the front, in which glass 2 is placed. The advertising matter may be illuminated by electric lamps 3, arranged in the casing; but this feature may be omitted without departing from the spirit of my invention.

Arranged in the casing is a plurality of sets of leaves, one set being arranged above another. While in the drawings I have shown but two sets of leaves, it is to be understood that a greater number may be employed. Each set comprises pairs of leaves 4 5, each pair of the upper set being connected near the outer edge to a carrying-bar 6, and the inner edges of a pair converge or are connected together. The several bars 6 of the upper set are mounted on arms 7 8, the several arms being independently mounted on shafts 9 10, extended from the end walls of the casing. The lower set of leaves is similarly arranged in pairs and attached in a similar manner to bars 11, which have arm connections 12 13 with short shafts extended from said end walls of the casing. The several bars extend somewhat beyond the ends of the leaves, so as to be engaged by the operating devices.

The operating devices comprise disks 14 15, having bevel-gears 16 17, engaged by bevel-pinions 18 19, mounted on a vertical shaft 20. On the lower end of the shaft 20 is a pinion 21, engaging with a gear-wheel 22, mounted on a rock-shaft 23, and on this rock-shaft is a crank-arm 24, which has a link connection 25 with a wrist-pin of a crank-wheel 26, operated by any suitable motor—such, for instance, as an electric motor—and geared for slow or intermittent motion. Obviously by this arrangement—that is, by connecting the crank-arm 24 by means of the link 25 and the wrist-pin—a rocking or back-and-forth motion will be imparted to the shaft 23, and consequently a similar motion will be imparted to the disks 14 and 15. Secured to each disk is a block 27, and mounted to swing on each block are pawls 28, designed to engage with the bars 6 and 11. These pawls 28 are held yieldingly in position by means of springs 29, and they are guided in their movements by means of pins 30, extended through slots in the pawls and connected with the blocks 27. Mounted to swing in the casing adjacent to the disks 14 and 15 are the retarding devices consisting of arms 31 32, these arms being connected one with the other by means of a link 33, and the arms are held yieldingly downward by means of springs 34. Near the rear end of each arm is a stop-lug 35 for engaging with a bar to hold the leaves connected therewith rearward of the ones exposed until the said exposed leaves are moved from exposure position. Also mounted on each arm is a cam-lug 36, designed to be engaged by a cam 37, secured to the inner side of the block 27 for the purpose of raising the various ends of said arms and releasing the lugs 35 from the leaf-carrying bars. It will be noted that the ends of the bars with which these lugs 35 engage are made wedge-shaped in cross-section. The exposed leaves are held from swinging for-

ward by means of pivoted fingers 38, designed to be raised by the carrying-bars as they are rotated and to fall against their forward sides after the bars shall have passed the fingers. These fingers are held yieldingly downward by means of springs 39. Attached to an end of each bar is a spacing-rod 6^a, designed to engage loosely against the next adjacent bar. As clearly shown in Fig. 1, four exposed leaves each have a portion of the advertising matter; but it is obvious that independent matter may be printed or otherwise placed on each leaf. During the exposure the operating devices or pawls will be in position indicated in Fig. 3. After a short interval the motor will operate to rotate the disks, so as to carry the pawls downward and pass over the carrying-bars of the exposed leaves. Then upon the reverse movement of the disks and pawls the pawls will be engaged by the next rear bars 6 11, and upon the forward and upward movement of the pawls a new set of leaves will be swung into display position.

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

1. In an advertising device, a part having an oscillating movement in a circular direction, a plurality of leaves mounted to move around an axis, and means carried by the oscillating part for moving the leaves one after another.

2. In an advertising device, a plurality of sets of leaves mounted to rotate one set adjacent to another, and an oscillating mechanism for simultaneously operating the leaves of the sets.

3. In an advertising device, parts having oscillating movement in a circular direction, a plurality of sets of leaves mounted to move in a circle, one set being arranged above another, pawls carried by the oscillating parts, means for simultaneously moving said oscillating parts, devices carried by the leaves adapted to be engaged by the said pawls, and spacing devices between adjacent leaves.

4. In an advertising device, a plurality of sets of leaves, the leaves of a set being connected in pairs, carrying-bars for the connected pairs and arranged at the outer edges thereof, arms extended from said carrying-bars, shafts on which the arms are independently mounted to rotate, and parts oscillating in a circular direction for simultaneously moving the upper and lower sets of leaves.

5. In an advertising device, a casing, a plurality of sets of leaves mounted to move in the casing in a circular direction, a disk arranged at the inner end of each set, pawls carried by said disks and adapted for engagement with projections from the leaves, and means for imparting rocking motion to the disks.

6. In an advertising device, a casing, a plurality of sets of leaves mounted to move in a circular direction in said casing, one set being arranged above the other, disks arranged in the casing at one end of the sets of leaves, gear connections between said disks, a motor for operating the gear, pawls carried by said disks for moving the leaves, swinging arms arranged adjacent to the disks, stop-lugs on said arms, means carried by the disks for swinging said arms, and swinging stop-fingers.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES S. ANDERSON.

Witnesses:
JNO. M. RITTER,
C. R. FERGUSON.