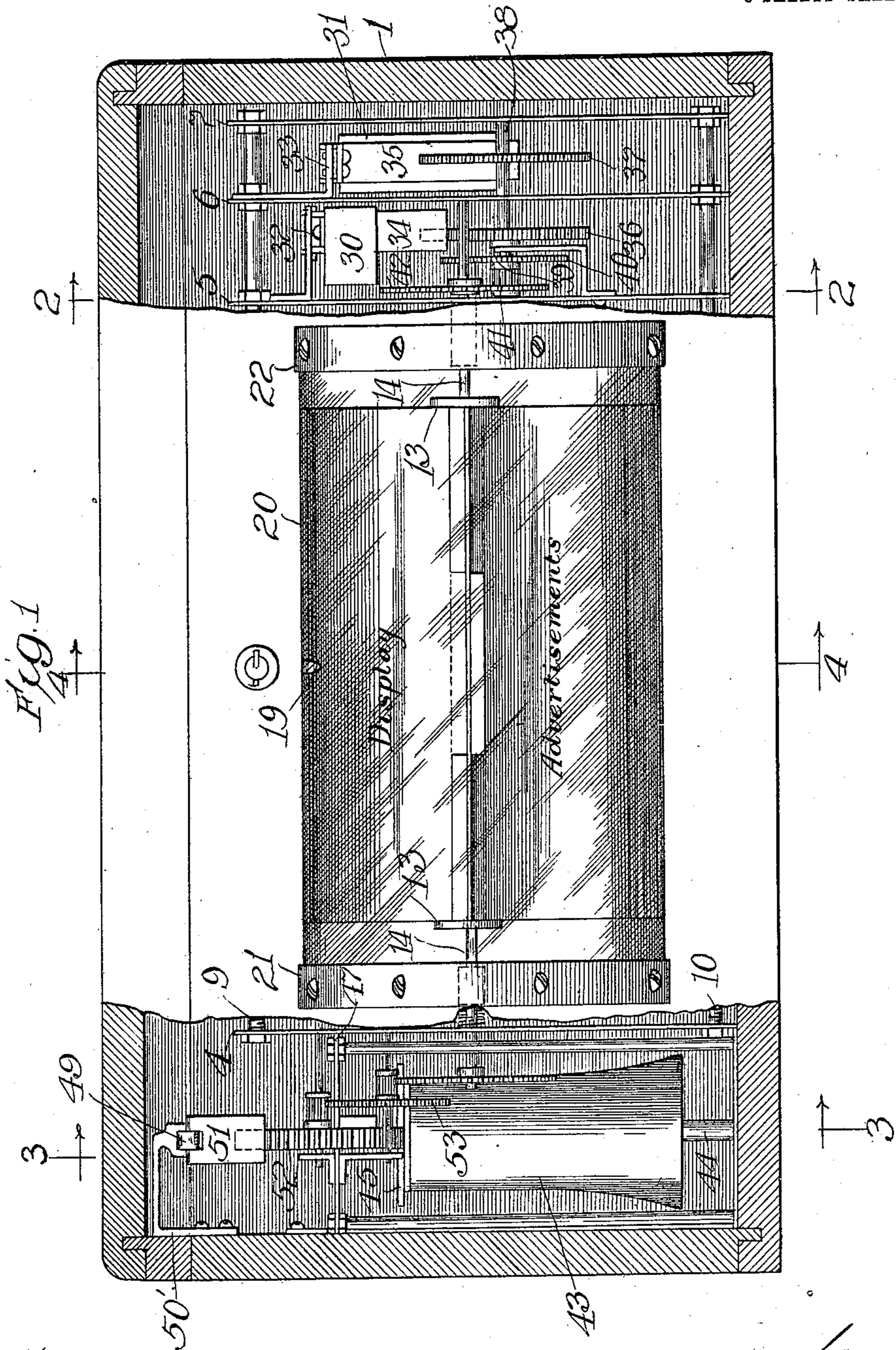


N. JOLEEN.
ADVERTISING DEVICE.
APPLICATION FILED FEB. 9, 1910.

975,622.

Patented Nov. 15, 1910.

3 SHEETS-SHEET 1.



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3 SHEETS—SHEET 2.

Fig. 3.

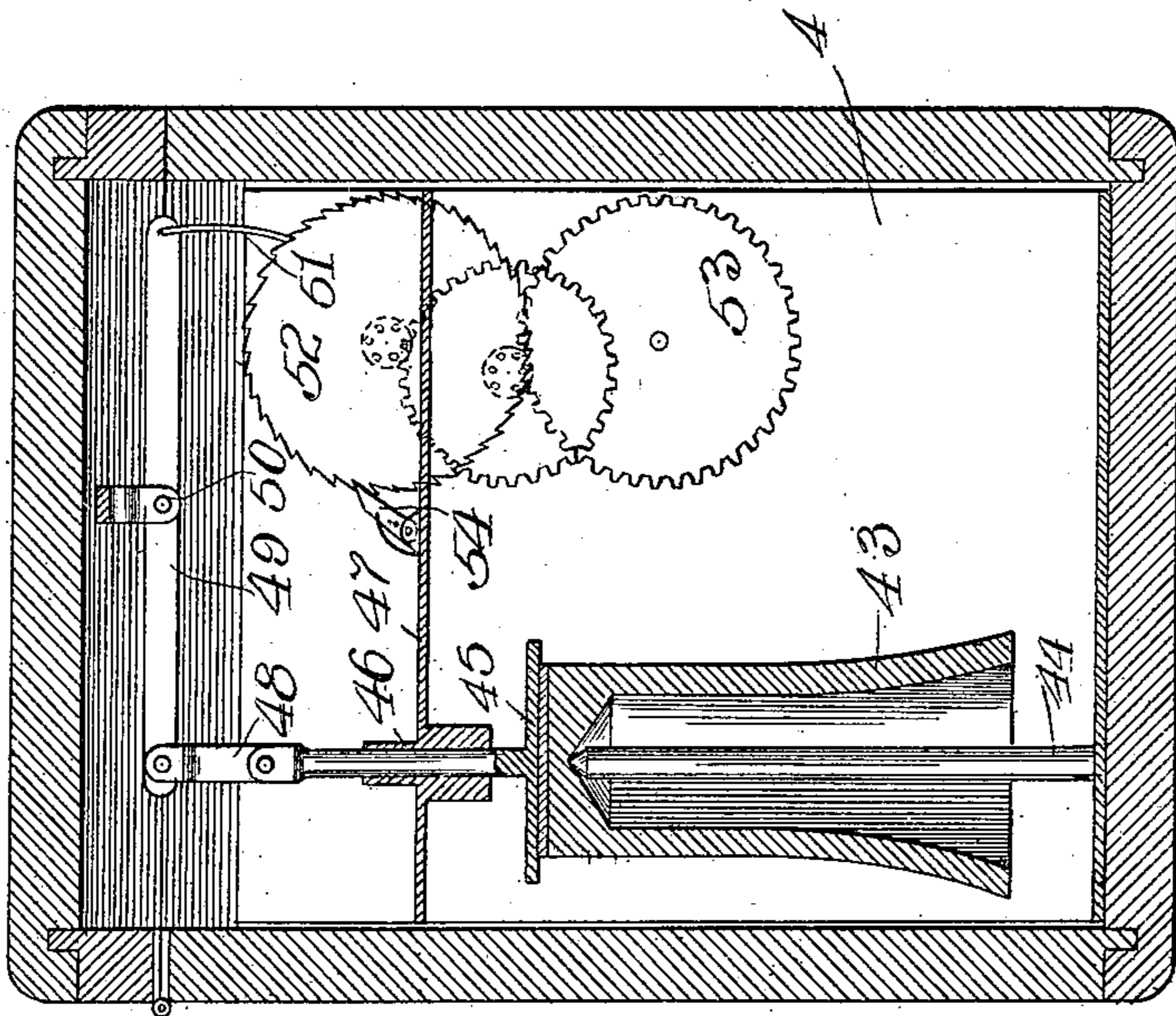
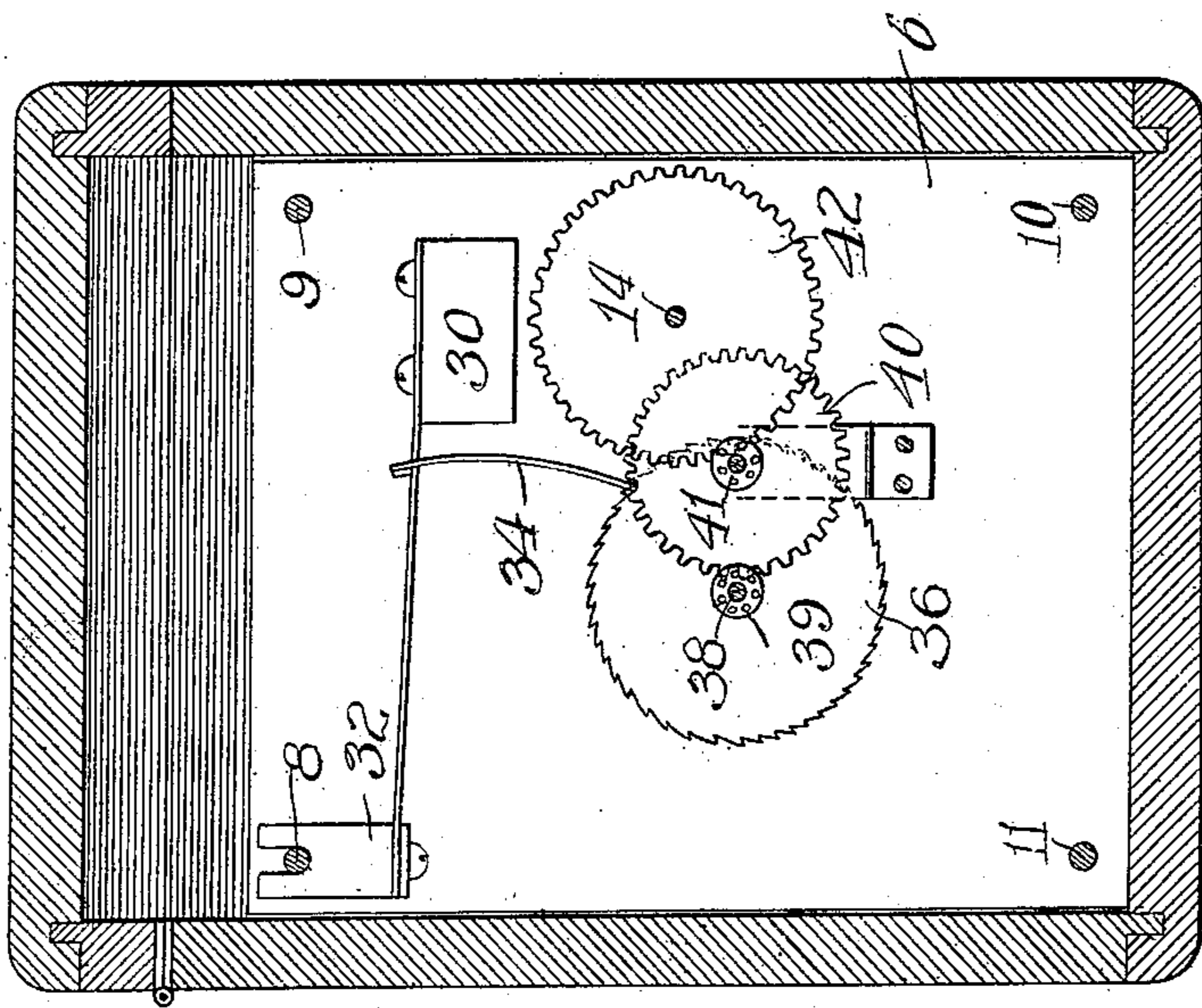


Fig. 2



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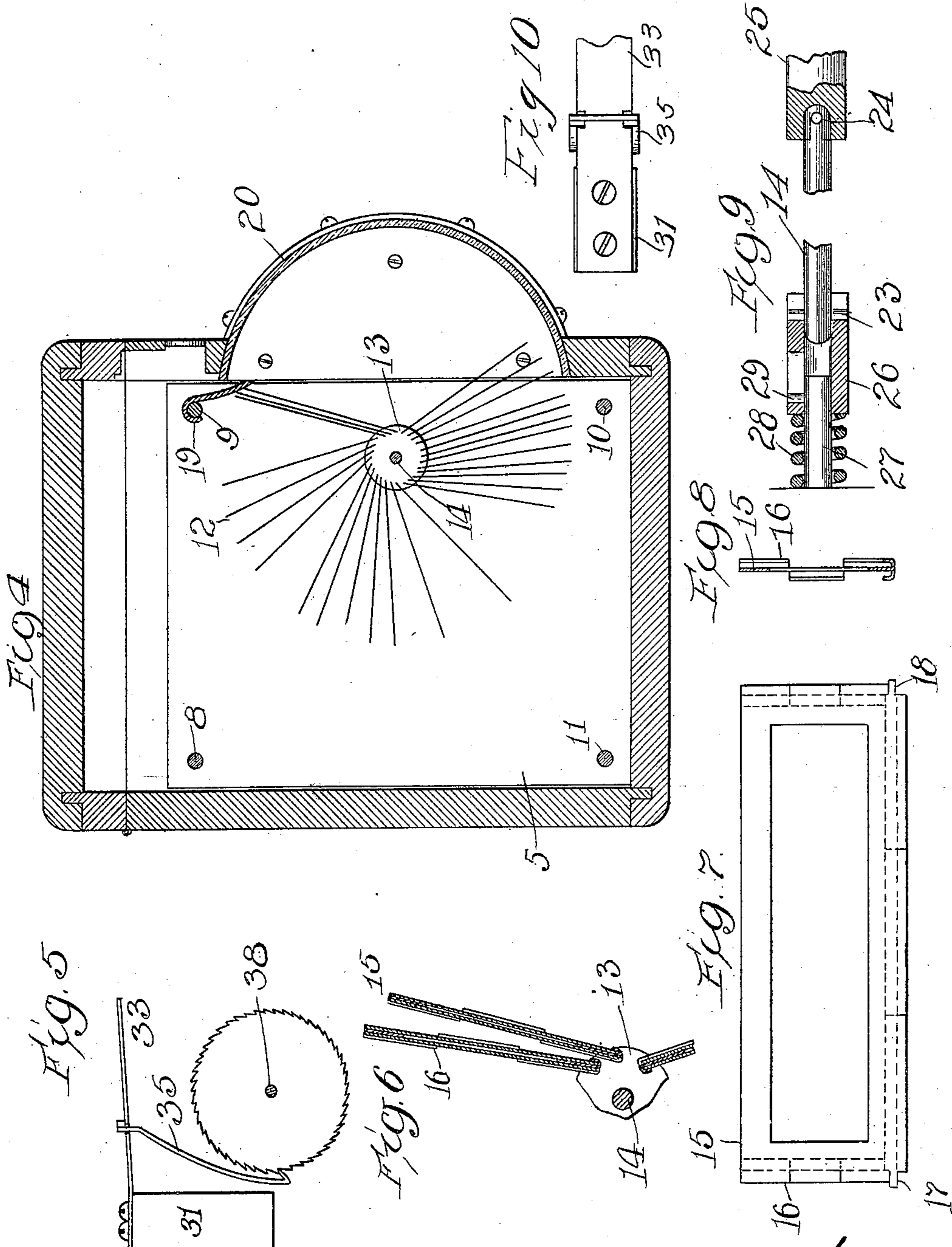
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3 SHEETS-SHEET 3.



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UNITED STATES PATENT OFFICE.

NELS JOLEEN, OF CHICAGO, ILLINOIS.

ADVERTISING DEVICE.

975,622.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed February 9, 1910. Serial No. 542,997.

To all whom it may concern:

Be it known that I, NELS JOLEEN, a citizen of the United States of America, and a resident of Chicago, county of Cook, State of Illinois, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification.

The main objects of this invention are to provide an advertising device having an advertising display which periodically changes, and which is driven by mechanism set in motion by movements of the street car or other vehicle or carriage in which the advertising display is mounted; to provide an advertising device, the exposed surface of which is changed or shifted either by jouncing of the car over irregularities in the track, or by swaying of the car as it swings from side to side, or otherwise shifts in position; to provide an advertising device having weights movable with respect to the vehicle on which the device is carried, and having adjuncts for utilizing the relative movement of these weights in producing motion capable of shifting the advertising display to present new subject-matter to the inspection of passengers riding in the car.

A specific construction embodying this invention is illustrated in the drawings, in which—

Figure 1 is a front elevation of the advertising device with portions of the casing broken away. Fig. 2 is a section along the lines 2—2 of Fig. 1. Fig. 3 is a similar section along the lines 3—3 of Fig. 1. Fig. 4 is a section on the lines 4—4 of Fig. 1. Fig. 5 is a detail of a part of the driving mechanism. Figs. 6, 7 and 8 are details of the advertising display. Fig. 9 shows the detachable mounting of the rotary display support. Fig. 10 is a fragmentary detail, showing in top plan the manner of connecting one of the operating pawls with the spring arm which operates it.

In the construction shown, the device comprises a wooden casing 1, which incloses a frame comprising vertical plates 4, 5, 6 and 7, connected together at their corners by suitable tie rods 8, 9, 10 and 11. This frame serves to carry the rotary advertising display and the driving means by which that display is periodically shifted.

The advertising display comprises a plurality of leaves 12 (Fig. 4), mounted radi-

ally on a hub 13, which is carried on a supporting member or shaft 14. Each leaf of the advertising device comprises a metal framework 15, initially cut like the blank shown in Fig. 7 with slits 16 in the edges so arranged that the protruding tabs can be bent back over the front and rear faces of the plate to form guideways into which advertising cards may be slipped. Each leaf thus carries advertising matter on both sides. At the lower corners of the blank are projections 17 and 18, serviceable as pivots when the plates are mounted in the hub 13. Above the center of the display device is a spring stop 19 soldered to tie rod 9 and serving to engage the edge of an approaching leaf to hold it for a time so that the advertisement printed thereon can be seen through the opening in the front of the casing. This opening may be covered by a curved glass 20, of cylindrical outline, held at its edges by suitable retaining strips 21 and 22.

For the ready removal of the display device as a whole, its shaft 14 may be arranged as shown in Fig. 9 with cross pins 23 and 24 at its ends, one end of the shaft being seated in a driving shaft 25 and the other end engaging with a collar 26, adapted to slide along a second driving shaft 27, about which is a helical spring 28. A pin 29 carried by shaft 27 engages with a slot in the collar 26. If shaft 14 is to be removed from its supports, the collar 26 is moved sidewise against spring 28, thereby disengaging with the pin 23 and allowing shaft 14 and its load of advertising cards to be removed. The driving means whereby this display device is rotated or shifted in position comprises three parts, all coöperatively related, and all energized or brought into action by movements of the car or other vehicle in which the advertising device is displayed. A part of this driving means is at the right of the advertising display, and comprises a plurality of weights 30 and 31, carried respectively on horizontal springs 32 and 33, and operatively connected through pawls 34 and 35 with a pair of ratchet wheels 36 and 37, mounted on a single shaft 38. This shaft carries a pinion 39, meshing with a gear wheel 40, and this gear wheel has a pinion 41 meshing with a second gear wheel 42, which is mounted directly on the shaft 25, which serves to rotate the display device.

When the device is in normal operation on a car, the natural vibrations, or up and down movements of the car, are sufficient to make the weights 30 and 31 move up and down, thereby making their respective pawls, 34 and 35, rotate the ratchet wheels 36 and 37. Pawl 34 bears down on the upper part of ratchet 36, so that as the weight 30 moves downward, the article will be rotated. Pawl 35 has a hooked end and serves to rotate its ratchet 37 only when the weight 31 is moving upward. These two ratchets thus come into action alternately, one being effective to drive the device while the other is inactive. At the other end of the advertising display is a bell-shaped universal pendulum 43, that is, a pendulum which may swing in all directions, supported on the top of a vertical standard 44, and arranged as shown in Fig. 3, to engage with the under surface of a horizontal plate 45 carried on a vertical rod which passes freely through a bearing 46 in a transverse plate 47 of the frame. This rod carries at its upper end a pivoted link 48, which is pivoted to a lever 49, having a fulcrum 50 near its center, and carrying on its opposite end a pawl 51. This pawl engages with a ratchet wheel 52 connected by a suitable train of gears to a wheel 53 serviceable as a driving means for the rotary shaft 27, which engages with one end of the advertising display shaft.

In operation, the bell-shaped pendulum 43 may swing horizontally in any direction in accordance with the tilting or swaying of the car, and thereby is effective to raise the horizontal bearing plate 45 and its connected shaft and link, to force the pawl 51 downward, so that it rotates ratchet wheel 52 and turns the advertising display in proper direction. A spring pressed pawl 54 may be mounted to engage with ratchet wheel 52, thereby at all times preventing backward rotation of that wheel and of the advertising display.

With the construction described, any sudden movement of the car, whether upward, downward or sidewise, will set up relative motion between the frame of the device and one of the weights, and thereby will set up rotary movement in the hub of the display device. When this movement has progressed far enough to release one of the leaves 12 from the stop 19, the released leaf will snap downward, thus presenting new advertisements at the window of the device. The leaves follow each other slowly enough to give an observer ample time to read the advertisements successively presented at the window.

Although but one specific embodiment of this invention is herein shown, it will be understood that numerous details of the construction shown may be altered or omit-

ted without departing from the spirit of this invention as defined by the appended claims.

I claim:

1. In an advertising device, the combination of a pendulum mounted to swing horizontally in a plurality of directions and having a shoulder extending around its center of oscillation, a thrust rod having a laterally extended part normally engaging said shoulder at a plurality of points, and an advertising display arranged to be operated by the movement of said thrust rod.

2. In an advertising device, the combination of a bell-shaped pendulum, a standard extending into said pendulum and supporting the same, a thrust rod having a laterally extended portion at its lower end, the pendulum having a shoulder normally engaging said extended portion at a plurality of points, and an advertising display arranged to be operated by the movements of said thrust rod.

3. In an advertising device, the combination of a pendulum mounted to swing horizontally in a plurality of directions and having at its upper end a shoulder extending around and symmetrical with respect to its center of oscillation, a thrust rod having a substantially flat laterally extended part adapted to coact with said shoulder to move said thrust rod longitudinally through the oscillation of said pendulum, and an advertising display arranged to be operated by the movement of said thrust rod.

4. In an advertising device, the combination of a pendulum mounted to swing horizontally in a plurality of directions, a vertically disposed thrust rod mounted to reciprocate vertically in substantial alinement with the center of oscillation of said pendulum, said pendulum having at its upper end a substantially flat annular surface symmetrically placed with respect to the vertical center line of the pendulum, and said thrust rod having a laterally extending, substantially flat surface adapted to coact with the edges of said surface on said pendulum to move said thrust rod vertically, and an advertising display arranged to be operated by the movement of said thrust rod.

5. In an advertising device, the combination of a bell-shaped pendulum having a hollow interior with a conical seat at its upper end, an upright support pointed at its upper end and seated in said seat, said pendulum having at its upper end an annular shoulder lying in a plane substantially at right angles to the vertical center line of the pendulum, a vertically disposed thrust rod mounted to slide vertically and having at its lower end a substantially flat disk adapted to coact with said shoulder to move said rod vertically through the oscillation of said pendulum in any direction, and an advertising display

play arranged to be operated by the movement of said thrust rod.

6. In an advertising device, the combination of a bell-shaped pendulum having a
5 hollow interior with a conical seat at its upper end, an upright support pointed at its upper end and seated in said seat, said pendulum having at its upper end an annular
10 right angles to the vertical center line of the pendulum, a substantially flat, horizontally disposed disk mounted to move ver-

tically above said pendulum in position to engage said shoulder and adapted to transmit vertical motion from the upward movement of any part of said shoulder, and an
15 advertising display arranged to be operated by the vertical movements of said disk.

Signed at Chicago this 7th day of February 1910.

NELS JOLEEN.

Witnesses:

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EDWIN PHELPS.