T. T. COCHRAN & R. Z. GARDNER.

DISPLAY APPARATUS.

APPLICATION FILED OCT. 6, 1909.

966,083.

Patented Aug. 2, 1910.

2 SHEETS—SHEET 1.

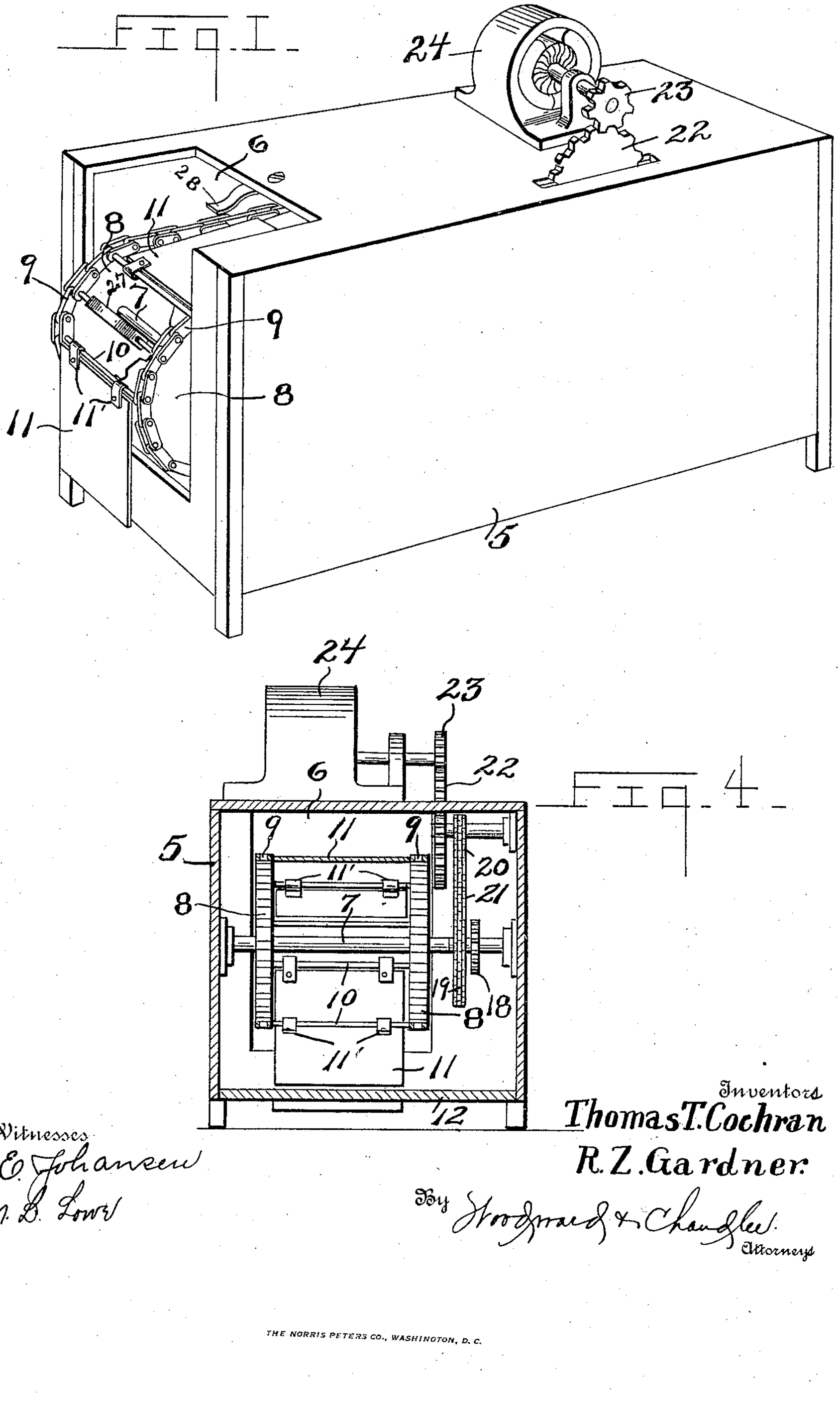

FIG. 4

Witnesses
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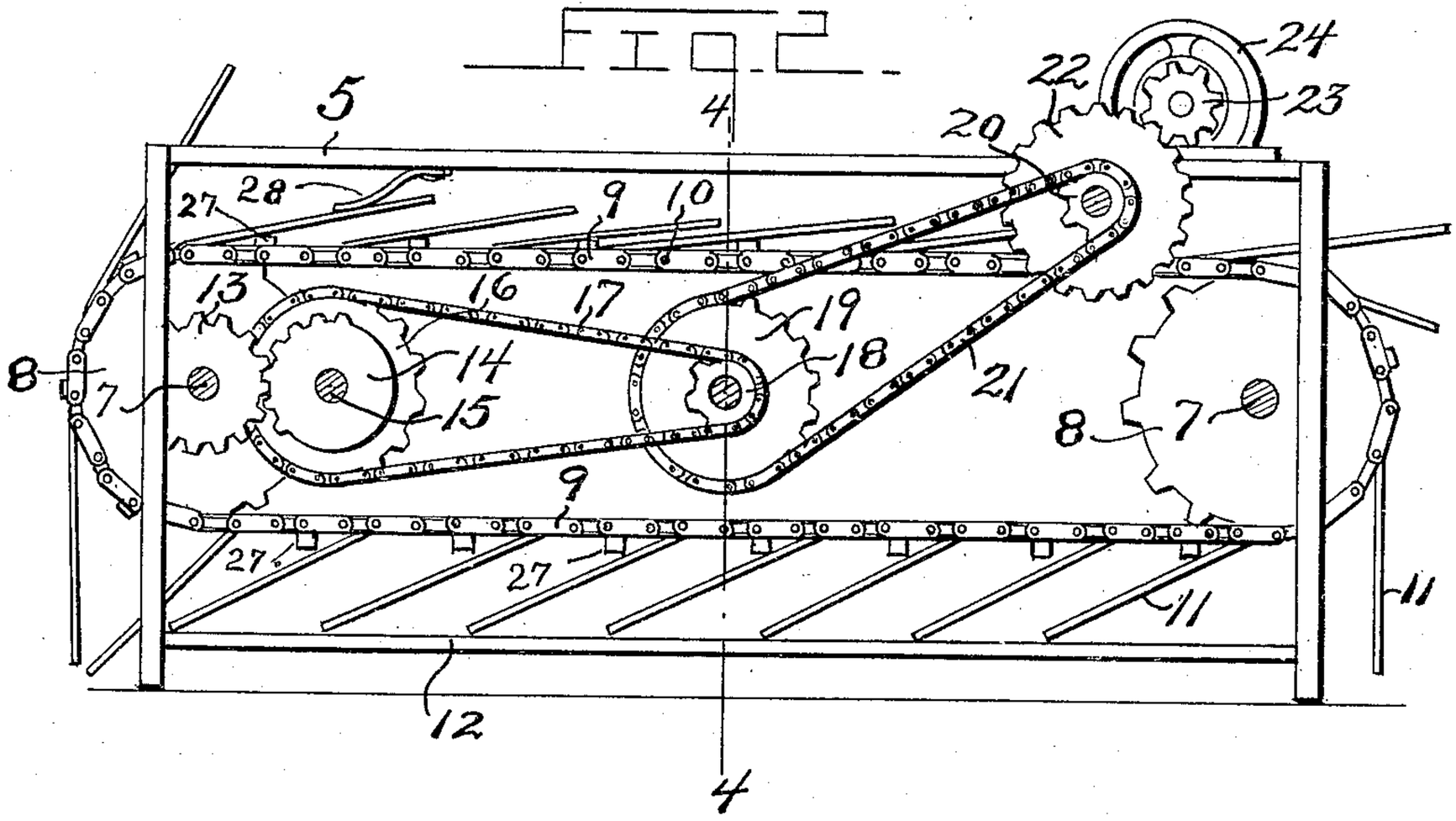

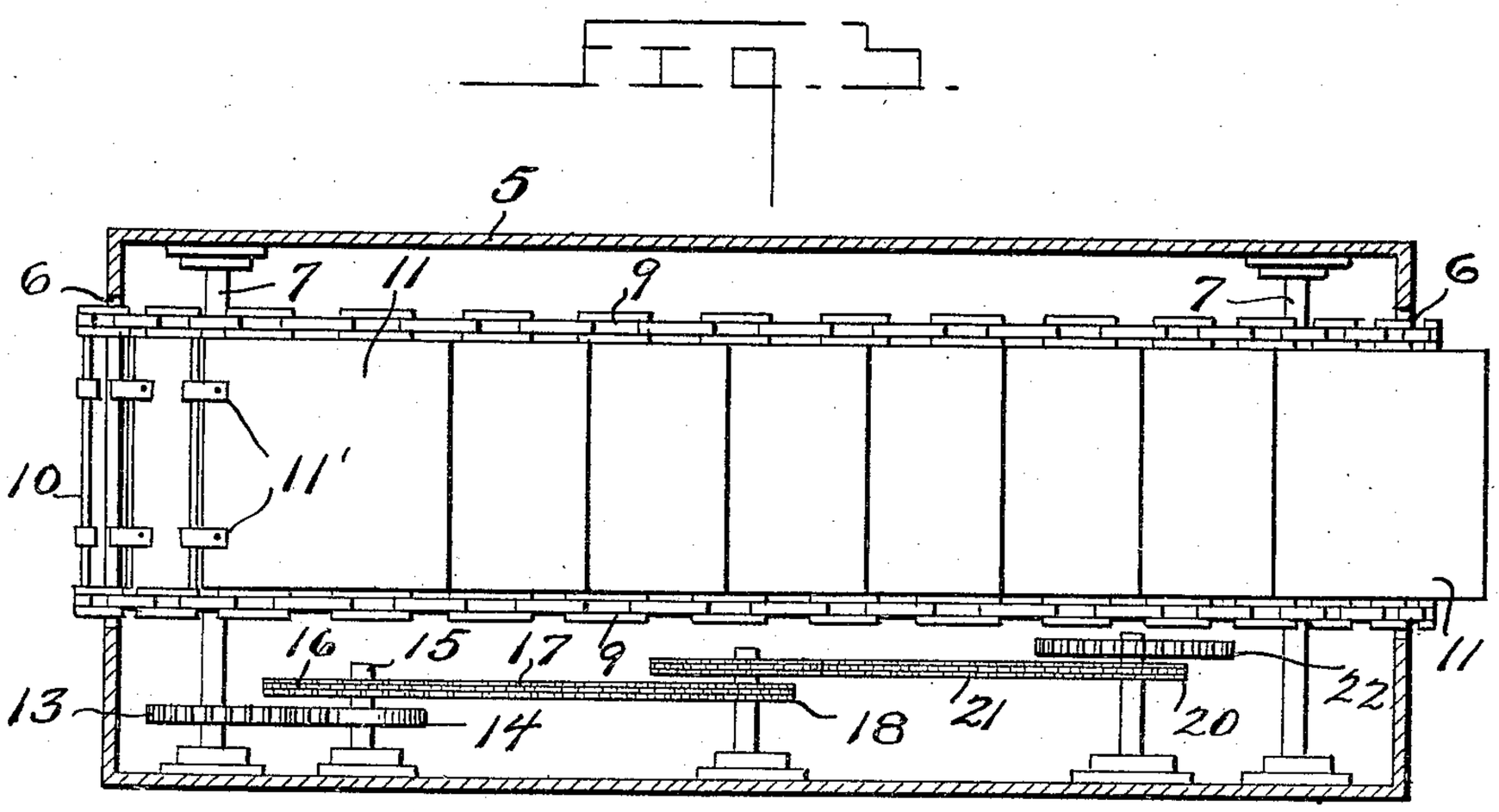

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UNITED STATES PATENT OFFICE.

THOMAS TIDWELL COCHRAN AND ROBERT ZACHERY GARDNER, OF ATLANTA, GEORGIA.

DISPLAY APPARATUS.

966,083. Specification of Letters Patent. **Patented Aug. 2, 1910.**

Application filed October 6, 1909. Serial No. 521,202.

To all whom it may concern:

Be it known that we, THOMAS T. COCHRAN and ROBERT Z. GARDNER, citizens of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Display Apparatus, of which the following is a specification.

This invention has relation to certain new and useful improvements in display or exhibiting apparatus, and has for its object to provide a machine of this character in which the advertising cards or articles to be exhibited are displayed simultaneously from each end of the machine.

Another object is to provide a novel construction of advertising machine, which is adapted to be intermittently operated to expose the cards or other devices on which the advertisements are carried to public view.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claim, it being understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of an advertising machine embodying our improvements. Fig. 2 is a side elevation, one side of the casing being removed. Fig. 3 is a top plan view, the casing being shown in section. Fig. 4 is a transverse section taken on the line 4—4 of Fig. 2.

Referring to the drawing 5 indicates a casing or housing in which the mechanism of the machine is inclosed, whereby the various parts are protected against liability of becoming clogged with particles of dust, and thus interfering with the operation of the machine. The opposite ends of the casing 5 are open as shown at 6. These openings are of sufficient size to allow the free swinging movement of the advertising cards as will later appear. Secured in each end of the housing upon the transverse shafts 7 are the sprockets 8, upon which the endless chains 9 are disposed. These chains are connected by the transverse carrying rods 10 to which are pivoted one edge of the advertising cards 11. These cards are preferably attached to the rods by means of the metal clips 11′, and are provided with advertising matter upon their opposite faces. These cards are adapted to be supported in an inclined position from the lower portion of the carrier chains by the supporting plate 12 which extends the full length and width of the casing, and in effect forms the bottom thereof.

In providing a suitable driving mechanism for the carrier chain we employ a gear 13 secured upon one end of the transverse sprocket shaft 7. This gear has meshing engagement with a mutilated gear 14 mounted upon a stub shaft 15 secured in the casing 5. Also mounted on the shaft 15 there is a chain sprocket 16 which is connected by the endless chain 17 with a smaller sprocket 18 also mounted upon a shaft disposed in one side of the casing. A larger sprocket 19 is also mounted upon the last named shaft and is geared to the sprocket 20 by means of the driving chain 21. A gear 22 is mounted upon the shaft of the last named sprocket and is engaged with the teeth of a pinion 23 carried by the motor shaft. The motor 24 is mounted upon the top of the casing, a slot being provided therein through which the gear 22 extends. The motor receives its supply of current from an external source of electrical energy, or suitable electric batteries connected therewith. In this manner it will be noted that the intermittent movement of the carrying chains 9 is provided for, thus attaining one of the principal objects of our invention, namely, to attain a more or less protracted period of inactivity of the sign carrier, at which time one of the advertising signs will be vertically positioned exteriorly of the ends of the casing. The reverse side of the cards will be exhibited as they are moved from end to end of the machine. Thus it will be seen that a very large number of advertisements may be displayed in a comparatively small space, and the constantly changing signs will attract and hold the attention of prospective patrons. The cards 11 will be disposed upon one another and lie flat upon the upper lengths of the carrier chains during their movement through the casing. As the chains pass over the sprockets 8, the cards will turn upon the carrying rods 10 to which they are pivoted and hang vertically. At this time the teeth of the mutilated gear 14 are disengaged from

the teeth of the gear 13, and will not again mesh with the same to rotate the sprockets, until the mutilated gear has almost completed an entire revolution. Thus there is quite a time which elapses before the card is moved from its vertical position, allowing the contents thereof to be read. It will be obvious that the length of time for which the sprockets are not in motion will entirely depend upon the relative diameters of the various driving sprockets. Thus it is quite a simple matter to quickly increase or decrease the speed of operation of the machine.

From the foregoing it will be seen that we have provided a display apparatus which is particularly designed for advertising purposes, and is adapted to be used for car advertising, or for displaying various articles of merchandise which may be secured to the cards carried by the sprocket chains. The machine is very simple in construction, durable and efficient in its operation and may be manufactured at a minimum cost.

In order to accelerate the movement of the cards into pendent position after passing over the upper part of their orbit, curved strap springs 27 are engaged slidably on certain of the rods 10 to bear upwardly against the preceding card when nearing the display opening, as shown in Figs. 1 and 2. A spring 28 is carried by the top of the casing and disposed to engage resiliently upon the cards and cause the cards to snap quickly into position.

What is claimed is:

A display apparatus comprising an open ended casing, sprockets mounted in the ends of said casing at the sides thereof and projecting beyond the same, carrier chains disposed upon said sprockets, transverse rods connecting the chains, a plurality of display cards pivotally mounted on said rods and adapted to lie in folded position upon the upper lengths of the carrier chains, the cards carried by the lower lengths of the chains being obliquely positioned and engaged with the bottom of the casing, curved strap springs carried by said rods upon which the cards are adapted to rest, and a spring fixed to the top of the casing and adapted to resiliently bear upon the card resting upon the said strap spring, and means for intermittently operating the carrier.

In testimony whereof we affix our signatures, in presence of two witnesses.

THOMAS TIDWELL COCHRAN.
ROBERT ZACHERY GARDNER.

Witnesses:
Y. P. KING,
C. H. MURRAY.