

1,201,243.

R. S. BLAIR.
ADVERTISING DEVICE.
APPLICATION FILED JULY 9, 1909.

Patented Oct. 17, 1916.

3 SHEETS—SHEET 1.

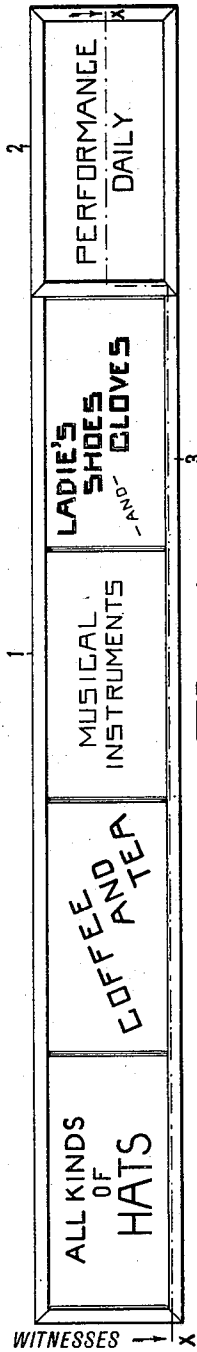


Fig. 1-

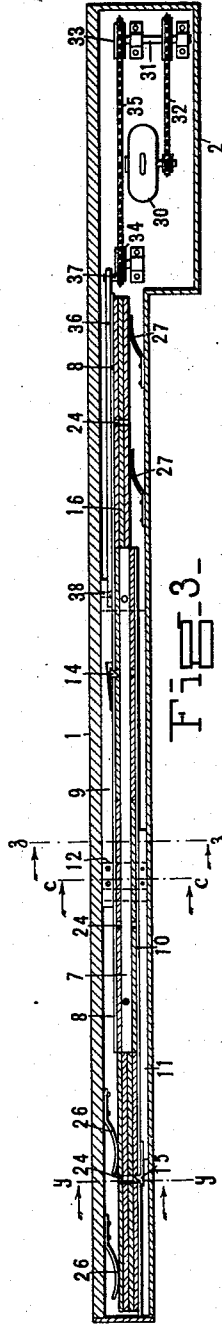


Fig. 3-

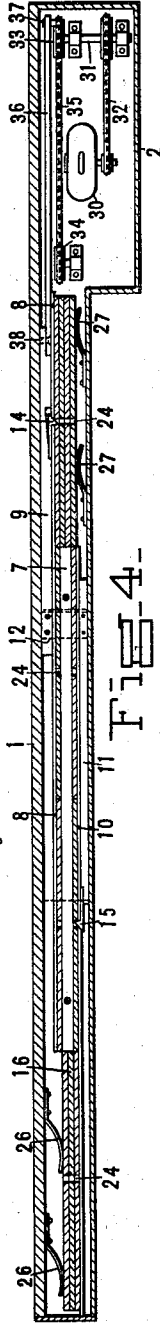


Fig. 4-

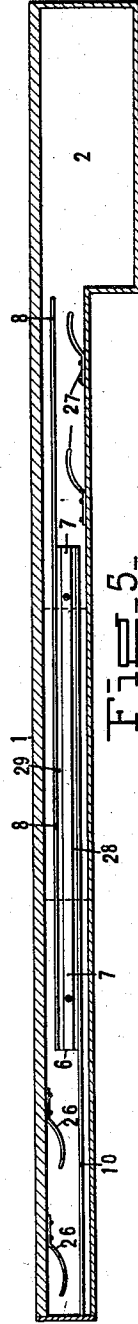


Fig. 5-

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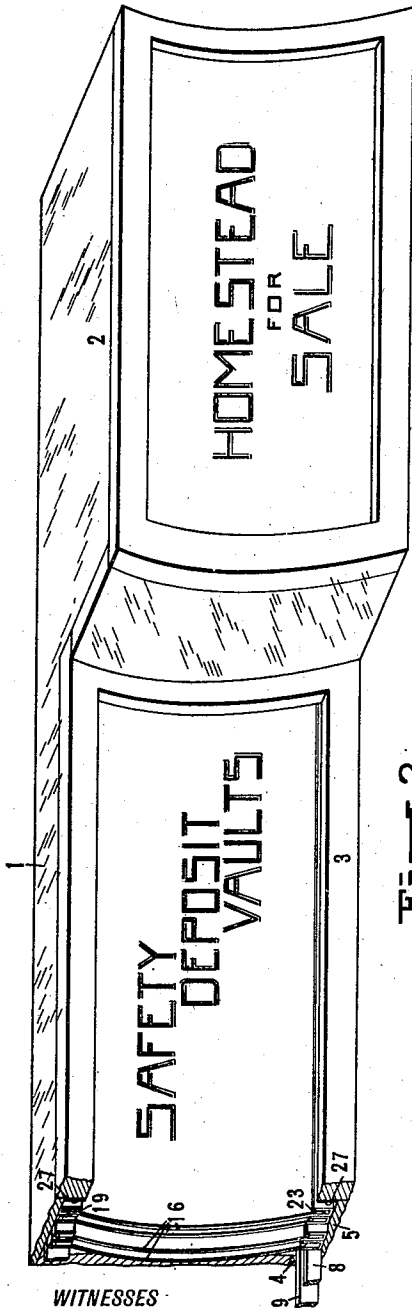
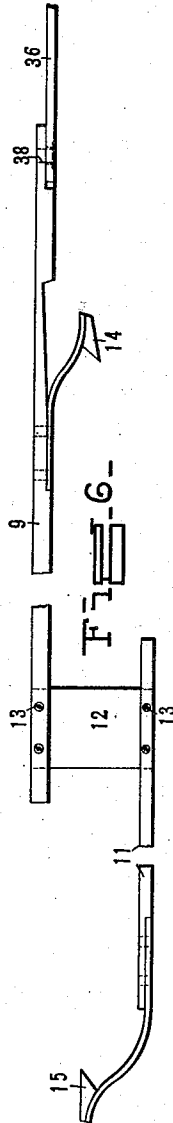
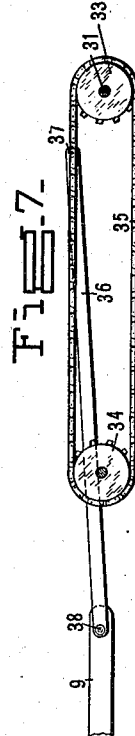


Fig. 2-



WITNESSES

Monroe Perry
Edgar C. Whitney

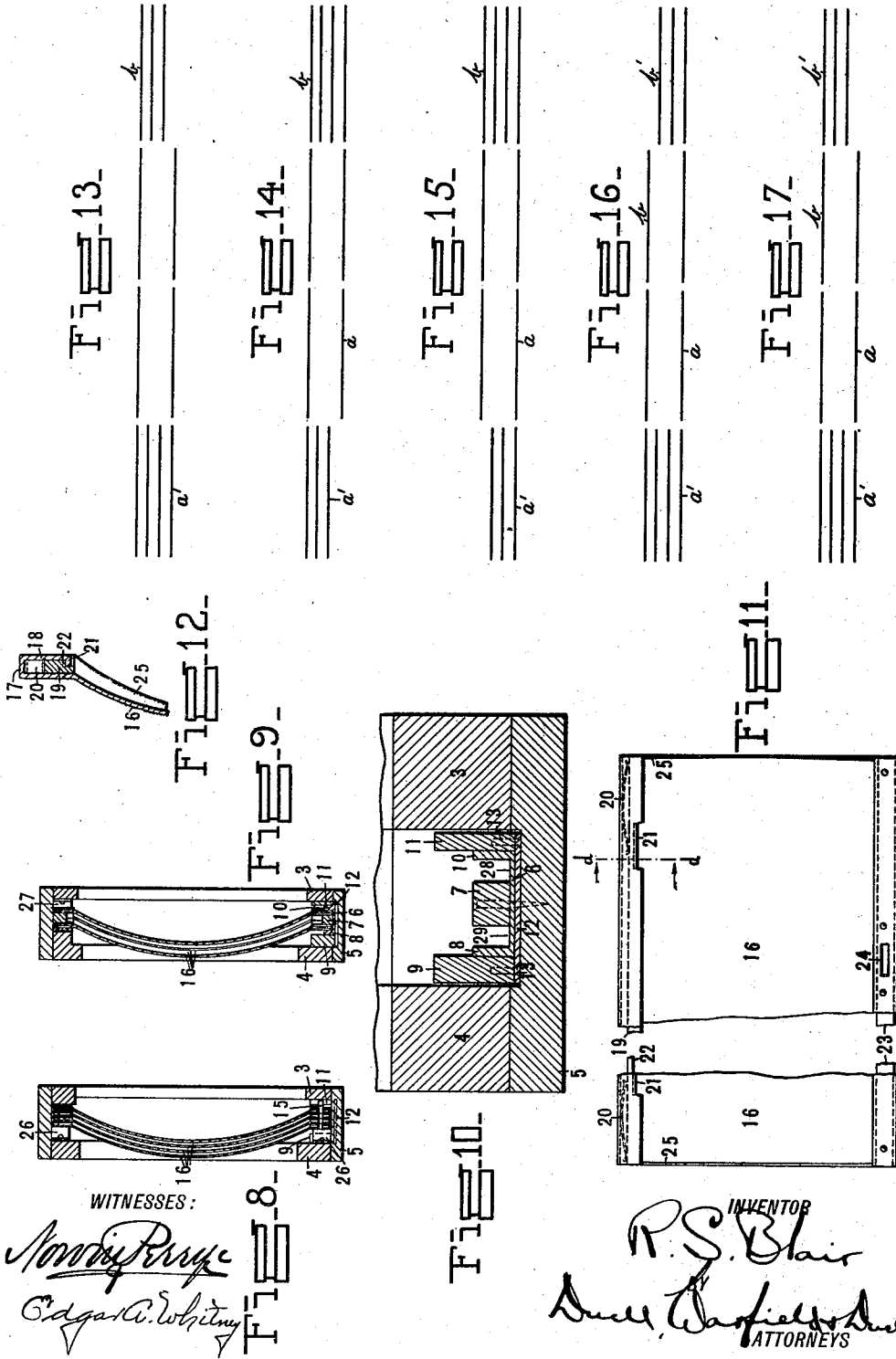
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3 SHEETS—SHEET 3.



UNITED STATES PATENT OFFICE.

ROBERT S. BLAIR, OF SOUTH ORANGE, NEW JERSEY, ASSIGNOR TO BARRON G. COLLIER, OF NEW YORK, N. Y.

ADVERTISING DEVICE.

1,201,243.

Specification of Letters Patent.

Patented Oct. 17, 1916.

Application filed July 9, 1909. Serial No. 506,644.

To all whom it may concern:

Be it known that I, ROBERT S. BLAIR, a citizen of the United States, residing at South Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Advertising Devices, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to advertising devices and more particularly to devices of this nature for use in cars.

One of the objects thereof is to provide a simple, inexpensive and efficient device of the above character wherein the display cards will travel from one end of the car to the other, so as to pass before all the passengers and attract their attention thereto.

A further object is a practical apparatus for advertising in cars in which a maximum of available card space is secured.

Another object is to provide car advertising apparatus of compact and durable construction and efficient and reliable action.

Another object is to provide simple and effective driving means for advertising apparatus having moving parts.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, in which is shown one of various possible embodiments of this invention, Figure 1 is a front elevation of the frame, showing the movable signs as they appear to an observer; Fig. 2 is a perspective view of one end of the frame broken away to show the relation of the parts within; Fig. 3 is a horizontal section taken on line $x-x$ of Fig. 1, through the elongated frame and motor box, showing the parts in position to move the front row of signs to the right; Fig. 4 is a similar view showing parts in position to move the rear row of signs to the left; Fig. 5 is a similar view, with the signs and driving mechanism omitted, showing lower guides; Fig. 6 is a broken enlarged plan view of shifting mechanism; Fig. 7 is an enlarged elevation of

mechanism whereby the rotation of the driving motor is transmitted to the shifting device as a constant reciprocatory motion; Fig. 8 is a section on line $y-y$ of Fig. 3, showing the superimposed position of the card holders in a reservoir at one end of the frame; Fig. 9 is a section taken on line $z-z$ of Fig. 3; Fig. 10 is a section taken on line $c-c$ of Fig. 3, showing the lower part of the frame and lower guides; Fig. 11 is a broken front elevation of a sheet metal holder adapted to slide between the guides of the elongated frame and carry an advertising card; Fig. 12 is a section taken on line $d-d$ of Fig. 11; Figs. 13 to 17, inclusive, are diagrammatic views showing the positions of the cards at various stages of the operation of the apparatus.

Similar reference characters refer to similar parts throughout the several views.

Referring now to Fig. 1 of the drawings, 1 indicates an elongated frame having connected with one end thereof a motor box 2. Located within the upper and lower spaced members or parts of this frame are guiding means, of which, as they are substantially alike, one only will be described in detail.

In Fig. 10, which is a section through the lower guide, 3 and 4 represent the lower side strips of the frame and 5 a bottom strip, strips 3 and 4 being spaced apart to form a groove running the length of the frame. Centrally located in this groove is a channel-iron 6 having a length substantially twice that of a card holder and centrally extending with respect to the channel 6 is a guide strip 7; both channel and strip being rigidly secured to the bottom strip 5 of the frame. It will be apparent that the frame members are thus provided with longitudinal parallel grooves within which the signs and the operating devices may move. It is to be understood that the channel 6 is let into the block 5 to such a depth that its upper surface is flush with that portion of the strip 5 beyond its ends.

In the space or groove between the rear flange 8 of the channel-iron 6 and the block 4, a rod 9 is held in a slidable manner, and in the space or groove between the front flange 10 of the channel 6 and the block 3, a rod 11 is also slidably positioned. A plate 12 connects rods 9 and 11 and is rigidly attached thereto by means of screws 13, this plate being freely movable longitudinally

beneath the channel 6 in a recess provided therefor in strip 5. The relative position of rods 9 and 11 is clearly shown in Fig. 6. Secured to the inner side of rod 9 is a spring
 5 detent member 14 and rod 11 has secured to its inner side an oppositely facing detent member 15. Each of these detent members is adapted to engage with a slot formed in the lower portion of an advertising card holder
 10 16, as hereinafter described.

Referring to Fig. 11, card holder 16 is made of sheet metal and is preferably of the general curved formation shown. Its upper edge is folded forwardly at 17 and down-
 15 wardly at 18 to form a trough adapted to retain therein a rod 19 capable of up and down movement relatively thereto, and springs 20 normally hold the rod 19 in its lower position. The edge of the sheet is intumed at 21
 20 to form abutments designed to engage with a recessed portion 22 of the rod 19 so as to limit the downward movement of said rod. The lower edge of card holder 16 is folded forwardly and upwardly to form a trough for
 25 the retention of a bar 23 which is rigidly held in position in said trough in any usual manner. A slot 24 extends transversely through the bar 23 and both thicknesses of sheet metal to receive detents 14 and 15 as
 30 above described. At the ends of the card holder, the metal is bent forward slightly at 25 to form flanges adapted to securely retain an advertising card between them. The ad-
 35 vertising card, when in place, rests with its lower edge upon the upper surface of the bar 23, above which the upturned edge of the sheet metal extends a short distance and the upper edge of the card is firmly engaged by
 40 the spring pressed rod 19. A plurality of these card holders 16 are arranged in two parallel rows within the elongated frame of the device.

As disclosed in the drawings, the frame is of sufficient length to hold four of these card
 45 holders in end to end relation, but it is to be understood that this number may be increased to any desired extent. At the left end of the frame springs 26 are shown in position to press certain of the card holders
 50 toward the front of the frame and at the right end of the frame similar springs 27 engage other card holders to press them rearwardly. The forward flange 10 of the guide channel 6 projects to the left and the rear-
 55 ward flange 8 projects to the right beyond the end of the channel. When the card holders are pressed forwardly by the springs 26 and rearwardly by the springs 27, they abut against these projecting flanges and are
 60 firmly held in operative position, in line with the guideways 28 and 29 respectively.

In the motor box 2 a motor 30 of any usual type is rigidly secured and its armature shaft is connected through suitable reducing gear-
 65 ing, not shown, to drive by means of an end-

less chain 32 a sprocket shaft 31 journaled within the motor box. On the rear end of the shaft 31 a sprocket wheel 33 is mounted to rotate with said shaft, and an idle sprocket 34 is rotatably supported within the motor
 70 box and is connected to the sprocket 33 by an endless chain 35.

There is shown at 36 a rod having one end pivotally secured at 37 to the chain 35, and the other end pivotally secured at 38 to the
 75 rod 9 of the shifting device, rod 36 being in substantial alinement with the groove receiving the rod 9.

The operation of the above described embodiment is as follows: Referring to Fig. 3, 80 the chain 35 driven by shaft 31 carries with it in its travel one end of rod 36, which transmits a constant reciprocating motion to the shifting device. When the shifting de-
 85 vice has reached the end of its stroke to the left, as shown in Fig. 3, detent member 15 engages with slot 24 in the end card holder, and upon the return stroke of the shifting means this card holder and the other two
 90 holders in the front of the apparatus are carried along with it to its second position, shown diagrammatically in Fig. 14. If we let *a* represent the front card holder at the
 95 left end of Fig. 13, it will now have moved into the position indicated in Fig. 14. The springs 26, pressing against the rear card holder at the left end, now force another
 100 card holder *a'* into operative position, as shown in Fig. 15, the card holder *a* remaining in the position it occupies in Fig. 14. The shifting device now starts to the left
 105 again and the detent member 14, having engaged with the rear card holder at the right end of the frame, shown as *b* in Fig. 15, carries it along one space to the left, to the position shown in Fig. 16, pushing all the rear
 110 card holders before it. The springs 27 now press the card holders in the right end of the frame rearwardly, so that the rear card holder *b'* is in position to be engaged by the
 115 detent member 14 when the shifting device again reaches the right end of the frame. As the shifting device continues to reciprocate, each card holder is in turn engaged by the detent member 15 and the whole front
 120 line is moved one space to the right, when the leading card holder is transferred to the rear line to be engaged by the detent 14 whereby the whole rear line is moved one
 125 space to the left. In this way all of the signs carried by the card holders are brought into view. The intermittent action of the device serves to more effectively attract the attention of the passengers than would be
 130 the case if the signs traveled continuously from end to end of the car without interruption. It is to be understood that any desired number of card holders may be employed, extra detents being provided if required. It is also to be understood that the direction of

travel may be reversed. Provision is also made for displaying one card in front of the motor box, thus utilizing this space.

From the foregoing description it will be observed that there is provided apparatus in which the objects of this invention are achieved.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

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

1. In a device of the nature described, in combination, an elongated frame for sliding card holders having upper and lower guides, each of said guides comprising a channel iron having one flange projecting longitudinally therefrom in one direction and the other flange projecting longitudinally therefrom in the opposite direction, and a strip extending longitudinally of said channel and disposed centrally thereof so as to provide

sufficient space on each side for the accommodation of said card holders.

2. In a device of the nature described, in combination, a block having a groove extending longitudinally thereof, a channel iron located centrally of said groove, a strip located centrally of said channel iron, said strip being rigidly attached to said block, rods slidably arranged at either side of said channel iron, a plate connecting said rods positioned beneath said channel iron in slidable relation thereto, a plurality of card holders slidably supported in serial relation between said channel iron and said strip on either side thereof, and means adapted to reciprocate said rods whereby said card holders are shifted.

3. In a device of the character described, in combination, a supporting frame, spaced longitudinal guide pieces extending at an angle to the frame, spaced guide strips mounted on the frame between the guide pieces and providing a plurality of pairs of parallel channels along the frame, and reciprocatory sign moving means guided in one pair of channels adapted to successively engage signs located in another pair of channels.

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

ROBERT S. BLAIR.

Witnesses:

HELEN M. SEAMANS,
PAUL A. WOLFF.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."