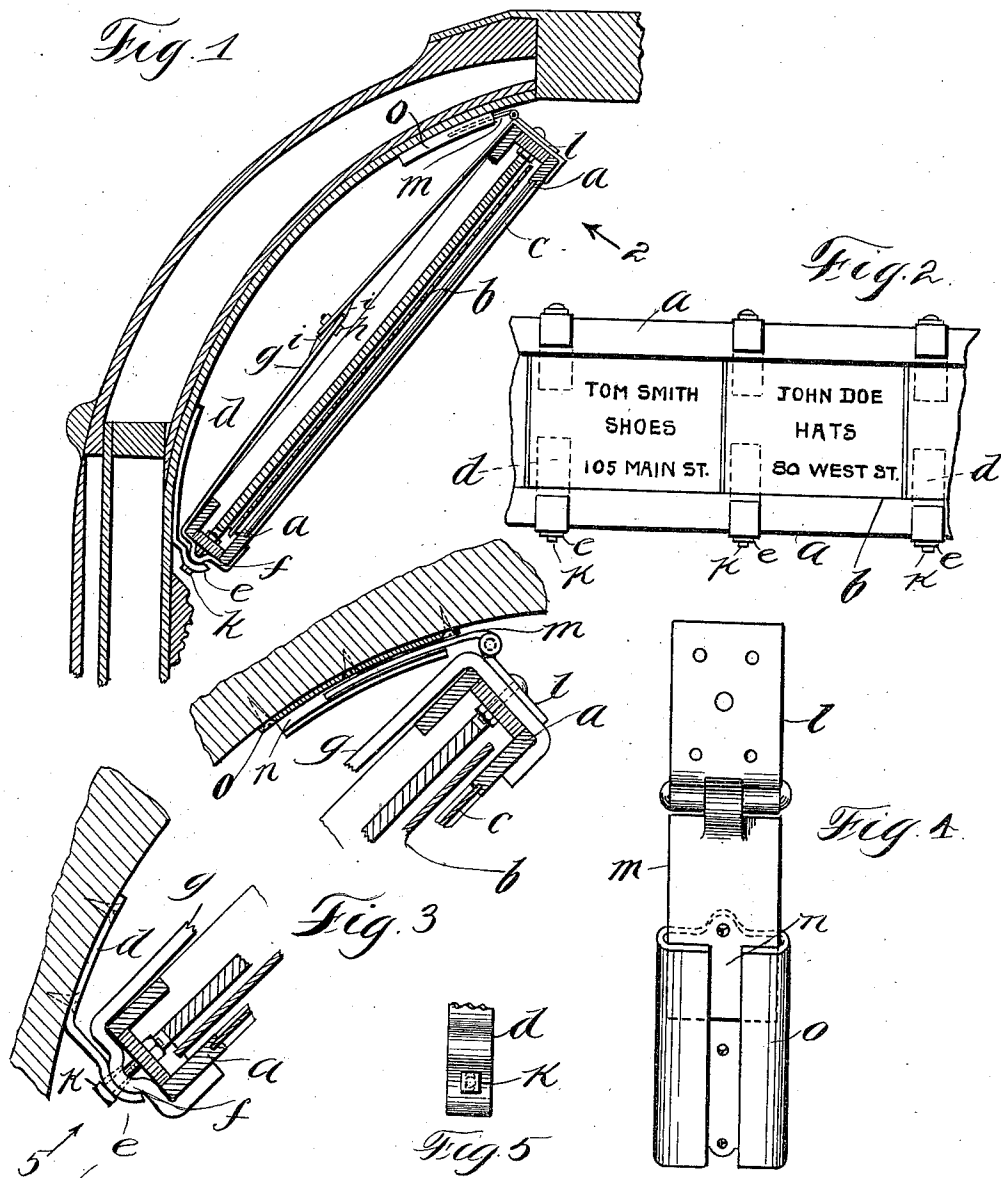


M. T. ASH.
 DISPLAY APPARATUS.
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1,059,653.

Patented Apr. 22, 1913.



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UNITED STATES PATENT OFFICE.

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DISPLAY APPARATUS.

1,059,653.

Specification of Letters Patent.

Patented Apr. 22, 1913.

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To all whom it may concern:

Be it known that I, MARSELIUS T. ASH, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Display Apparatus, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to display apparatus and is particularly applicable to the display apparatus that is commonly found in railway vehicles, though the invention is not to be restricted to any particular class of vehicles, it being also usable for example, in connection with display apparatus that may be employed in busses.

As is well-known by those familiar with the art display apparatus as hitherto devised comprised frame work designed for location in the upper longitudinal corners of vehicles and containing mechanism for periodically changing the location of display matter also located within the frame work, and my invention is of particular service in connection with this class of apparatus, though I do not wish to limit myself to apparatus in which the position of the display matter is altered, as my invention is also useful in connection with display apparatus in which the position of the display matter is not mechanically altered.

The frame work which houses the display matter is usually provided with facing of glass and as this frame work has been hitherto positioned this glass facing was very frequently fractured and the frame work itself was very frequently damaged and the mechanism within the frame work, when such mechanism was employed, was also frequently damaged and thrown out of adjustment owing to the manner in which the frame work was secured to the wall portions of the vehicle, such frame work having hitherto been rigidly secured along its top and bottom edges to the vehicle wall portions in such manner as to be unadapted to changes in the relative positions between the two wall parts to which the frame work was rigidly secured, the relative positions between these two parts being liable to frequent changes as the vehicle proceeded in its

travel and particularly when the vehicle rounded curves. Unequal loading of the vehicle also gave rise to change in the relative positions of these two wall parts to such extent as to occasion the undesirable results which have been pointed out.

In practicing my invention I interpose connecting means between the display matter containing frame work and the wall parts of the vehicle to which the frame work is to be attached whereby relative movements between these two wall parts may occur without stress upon the frame work. In accomplishing this result I employ, for at least one of the devices, for securing the frame work in position, a construction which permits of sufficient amount of lost motion between the associated wall part and the part of the frame work attached thereto.

One way of practicing my invention is shown in the accompanying drawing in which—

Figure 1 is a view in cross section taken through an upper longitudinal corner of a car, a display matter containing frame work being shown secured in position in accordance with my invention. Fig. 2 is a view in direction of arrow 2, Fig. 1. Fig. 3 is a view similar to Fig. 1, but on a larger scale and with certain parts broken away. Fig. 4 is a view in elevation, of a suitable form of mechanism for holding the frame work in position. Fig. 5 is a view in the direction of arrow 5, Fig. 3.

Like parts are indicated by similar characters of reference throughout the different figures.

The frame work for containing the display matter is indicated at *a*, this frame work possessing substantially straight and parallel horizontal top and bottom edges between which the display cards are held. The matter to be displayed through the display opening in the frame work is indicated at *b*. If glass facing is employed it may be located in a suitable position within frame work as indicated at *c*. The frame work *a* is usually long as compared with its height, on which account a plurality of attaching or mounting devices are distributed along the bottom and top marginal portions of the frame work.

For the lower mounting devices I prefer

to employ plates *d* secured to a vehicle wall portion behind the frame work *a* and having at their lower ends seats *e* that receive seat portions *f* carried by the frame work and desirably formed upon the lower ends of a brace member *g*, the major portion of this brace member being located to the rear of the frame work *a*, the ends of the brace member being of hook shape to receive top and bottom marginal portions of the frame work. In order that the brace member *g* may readily be moved and replaced it is preferably formed in sections that are mechanically united by means of wing bolt *h*, the overlapping end of each section of said brace member having abutting engagement with a lug *i* upon the other section of said brace member to relieve the wing bolt *h* of shearing strain. I do not wish to be limited, however, to the employment of the brace element *g*.

In order to prevent the frame work from being dislodged from its seats *e* due to motions of the vehicle I employ retaining screws *k* which pass throughout the seats *e* the portions *f* and into the frame work *a*, the shanks of the said screws passing through apertures in the seats *e* that are sufficiently large to permit the frame work to move about in its seats to sufficient extent. The frame work *a* has leaves *l* of a number of hinges secured along its top marginal portion, the companion leaves or fingers *m* having lost motion connection with the contiguous wall part of the vehicle preferably by being received within the channel way *n* of a channel plate *o* that is secured to the said contiguous wall part. The elements *m* and *o* are thus in telescopic engagement or connection. As relative movement occurs between the wall parts to which the elements *d* and *o* are secured the hinge leaves *m* will work back and forth within the channel ways *n* to compensate for the relative motion between said wall parts in a manner to prevent the transfer of undue stress to the frame work and whatever parts it may contain, whereby such frame work and the parts it contains are well protected against injury. I prefer to employ the hinge structure *l m* as thereby the angle to which the elements *m* may readily be adapted to the shifting angles of the channel parts *o*. The frame that contains the display cards is thus held in suitable relation with the longitudinal side and top wall portions of the vehicle and in a manner to permit of relative movement between these wall portions without in any wise affecting the display cards within the frame since these display cards are held within the frame independently of the mechanism that unites the frame with the vehicle wall portions.

While I have herein shown and particu-

larly described one way of carrying out my present invention I do not wish to be limited to the precise way in which I practice my invention, as changes may readily be made without departing from the spirit of the invention.

Having thus described my invention I claim as new and desire to secure by Letters Patent the following:

1. Apparatus of the class described including side and upper vehicle wall portions extending longitudinally of a vehicle; framework for containing matter to be displayed extending longitudinally of the vehicle and having substantially straight and parallel top and bottom edges adapted to receive display cards or plates therebetween; and mechanism for holding the framework in relation to said vehicle wall portions and independently of the display matter contained within the framework, said mechanism including one portion affixed to the vehicle and a second portion carried by the framework, these two portions being in telescoping relation to permit of relative motion between said wall portions without exerting injurious stress upon the framework.

2. Apparatus of the class described including side and upper vehicle wall portions extending longitudinally of a vehicle; framework for containing matter to be displayed extending longitudinally of the vehicle and having substantially straight and parallel top and bottom edges adapted to receive display cards or plates therebetween; and mechanism for holding the framework in relation to said vehicle wall portions and independently of the display matter contained within the framework, and said mechanism being flexible to permit of relative motion between the wall portions without exerting injurious stress upon the framework, said mechanism including two elements in telescoping engagement, one secured to the vehicle and the other to the framework; and also a support for the lower portion of the framework which is secured to the vehicle and upon which the framework may rock.

3. Apparatus of the class described including side and upper vehicle wall portions extending longitudinally of a vehicle; framework for containing matter to be displayed extending longitudinally of the vehicle and having substantially straight and parallel top and bottom edges adapted to receive display cards or plates therebetween; and mechanism for holding the framework in relation to said vehicle wall portions and independently of the display matter contained within the framework, said mechanism being flexible to permit of relative motion between said wall portions without exerting injurious stress upon the frame

work, said mechanism including a support
attached to the vehicle and engaging the
lower portion of the frame work, the frame
work being mounted upon the support so as
5 to rock when the position of the frame work
with respect to the vehicle changes owing to
relative movement between the vehicle walls.

In witness whereof, I hereunto subscribe
my name this 9th day of November, A. D.
1909.

MARSELIOUS T. ASH.

Witnesses:

G. L. CRAGG,
R. E. ATHERTON.

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