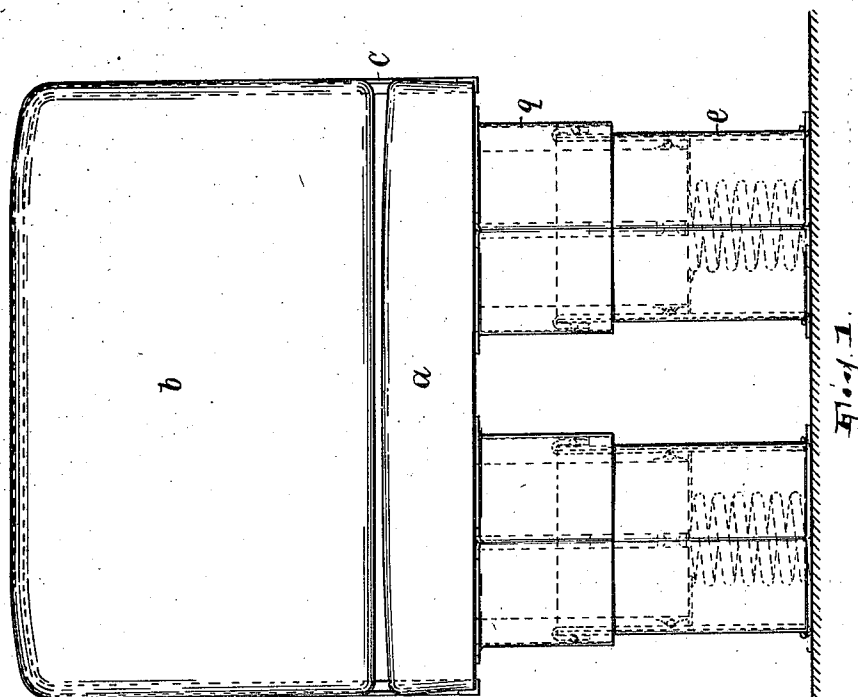
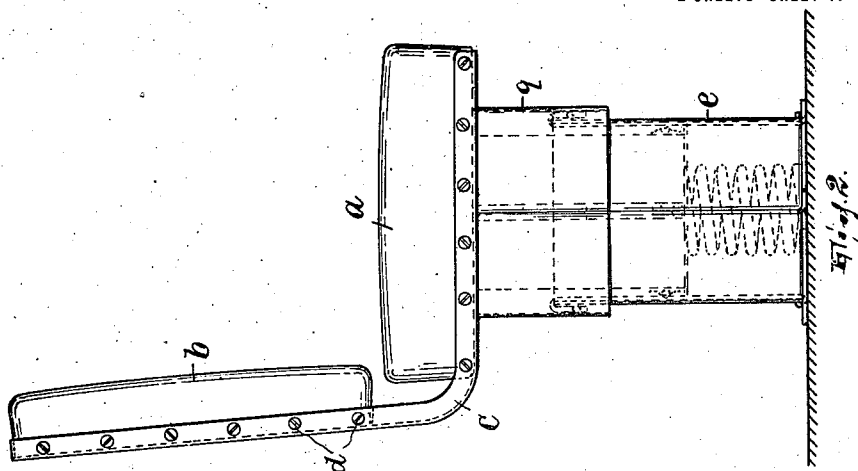


F. G. PARKER,  
SEATING APPLIANCE.  
APPLICATION FILED DEC. 13, 1920.

1,429,249.

Patented Sept. 19, 1922.

2 SHEETS—SHEET 1.



WITNESS:

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INVENTOR,

Fred G. Parker,

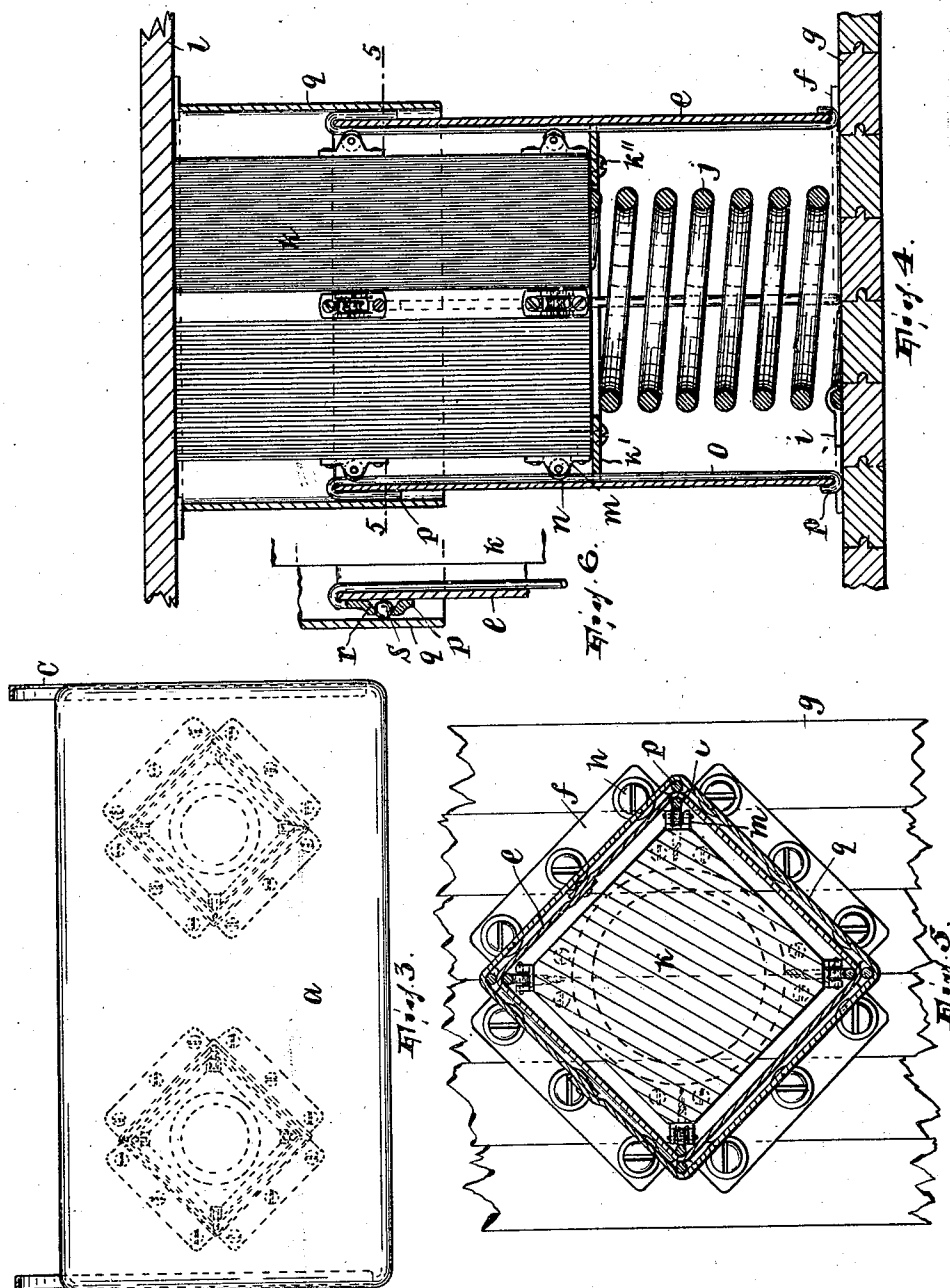
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2 SHEETS—SHEET 2.



WITNESS

*Wm. Drell*

INVENTOR,  
Fred G. Parker,

BY *John Edward*  
ATTORNEYS

## UNITED STATES PATENT OFFICE.

FRED G. PARKER, OF PATERSON, NEW JERSEY.

## SEATING APPLIANCE.

Application filed December 13, 1920. Serial No. 430,196.

*To all whom it may concern:*

Be it known that I, FRED G. PARKER, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Seating Appliances, of which the following is a specification.

This invention relates to seating appliances and as herein shown has been designed as a seating appliance for vehicles, where it is desirable that the seat should have up and down movement and be cushioned against downward movement and where its supporting means should take up as little floor space as possible, so as to allow ample foot room, and yet should afford ample basal dimension in the directions in which tilting forces are usually applied, and especially forward and back and laterally.

My invention consists in certain combinations of parts in a seating appliance of the class in which a seat-including means is movable vertically with respect to a supporting means, being cushioned in its downward movement, the object being to provide a structure of this class which shall be strong and durable in construction, inexpensive to manufacture, and efficient in operation especially in that its up and down movements will be without friction or binding.

My invention further consists in a novel back and seat structure to be hereinafter set forth.

In the drawings,

Figure 1 is a front elevation of the improved seating appliance;

Figure 2 is a side elevation;

Figure 3 is a plan, the back being removed;

Figure 4 is a vertical sectional view of the supporting means;

Figure 5 is a sectional view on line 5—5, Figure 4; and

Figure 6 shows a detail.

*a* designates the seat proper and *b* the back, the back being secured to the seat in the following way: A strip *c* of angle iron is bent so as to extend along the top and down both sides of the back *b*, and then also so that its extremities extend forward, giving the angle iron an L-shape in side elevation. The angle of the angle iron is made to receive the rearward edges of the top and sides of the back and the under lateral edges of the seat, and is secured to the back and

seat by means of screws *d* or otherwise. In this way an inexpensive and yet strong and durable back-and-seat structure is produced.

*e* designates a hollow upright preferably formed of sheet metal and made square in horizontal section, the same having at the base, and at its four sides, lateral flanges *f* adapted to be secured to the floor *g* of the vehicle by screws *h*.

Within upright *e* and secured to the floor by a suitable clamp *i* is a helical spring *j*.

Upright *e* also contains a plunger *k* which is substantially square in cross section and is secured to the seat bottom *l* (such as boards—the seat shown being of the upholstered type), resting on the spring *j*. The plunger *k* is nearly of the same cross-sectional area as the upright *e* and in order to keep its vertical movements therein true it has projections which travel in the angles of said upright *e*, the said projections in the present instance being parts formed independently of the plunger and the upright in the present instance having ways on which said projections travel which are also formed independently of the upright. That is to say, bearing plates *m* are attached to the corners of the plunger *k* and in them are journaled peripherally grooved rollers *n*; the ways referred to, designated *o*, are suitable lengths of heavy wire each arranged at an angle and within the upright, extending vertically, and having its ends *p* rebent and clinching the upper and lower edges of the upright. The construction is such that the plunger moves up and down with complete freedom and yet undue lost motion laterally in any direction is prevented.

There may be an apron *q* of sheet metal, square in horizontal section, depending from the seat bottom *l* and housing the upper end of the upright *e*, thus giving a finish to the supporting means. As a further means to guide the structure including the seat, plunger *k* and apron *q* I may flatten out the rebent upper end *p* of each track or way *o* and by an opening *r* formed in the thus-flattened portion provide a bearing for a ball *s* which is kept in place by being backed by the upright *e* and by the outer end of the opening *r* being so restricted as to prevent the escape of the ball outwardly, the ball being arranged to bear in the adjoining angle of the apron *q*.

In the case of a seating appliance adapted for two or more occupants there will be a

plurality of the seat supporting means which I have above described in detail, these being arranged side by side.

The polygonal form in horizontal section of the members *e* and *h* of the supporting structure involves several important advantages: the angles of member *e* not only stiffen this member but afford guideways (themselves stiffened by their angular form) for the projecting portions which are developed by the angular form of the plunger *h*; the angles of member *e* also form pockets or grooves in which the ways or tracks *o* repose, when as herein illustrated the guideways are finished with ways or tracks. Again, the polygonal form of the supporting structure for the seat makes it require the least amount of floor area and yet be adapted to afford a stable support to the seat against tilting when placed, as in accordance with my invention, so that the angles thereof project toward sides of the seat; in the present case, the seat being four-sided and the supporting means square in horizontal section, the latter is arranged with two opposite angles thereof projecting toward the front and back of the seat and the other two angles projecting toward lateral sides of the seat. This arrangement, moreover, affords ample foot room, which is especially desirable where the seating appliances are used in a bus or other vehicle and are placed more or less close together, one in front of the other.

If the member *g* is formed as herein set forth of stiff material (although it need not necessarily be formed of such material) it will serve to assist in guiding the seat-including structure, as for instance as illustrated in Figures 5 and 6.

To the under side of the block forming the plunger *h* a gasket or equivalent *h'* is secured by screws *h''* so as to seal off from above the space therebelow and make the plunger in effect a piston, so that the seat will rest in part on a pneumatic cushion.

Having thus fully described my invention, what I claim as new and desire to secure by Letter Patents is:—

1. A seating appliance comprising opposed means including receiving and received telescoped members, one of said means including a seat and being movable up and down

and the other supporting the first means, and the receiving member being inwardly angular in horizontal section and the received member having guiding projections extending outward of the general cross-sectional contour thereof and received in the angles formed by the receiving member.

2. A seating appliance comprising opposed means including receiving and received telescoped members, one of said means including a seat and being movable up and down and the other supporting the first means, and the receiving member being inwardly angular in horizontal section, and ways reposing in and extending longitudinally of the angles and engaged by the receiving member.

3. A seating appliance comprising opposed means including receiving and received telescoped members, one of said means including a seat and being movable up and down and the other supporting the first means, and vertical attenuated pieces having their upper and lower ends rebent over and thus secured to the upper and lower ends of the receiving member and forming guiding means for the received member.

4. In combination, a seat-including structure having a downwardly projecting plunger, a hollow upright formed substantially polygonal in horizontal section and receiving the plunger and adapted to rest on a suitable base, the plunger having projecting portions guided in the angles of said upright and said uprights being arranged with the angles thereof projecting toward sides of the seat, and a cushion device within the upright against which the plunger bears downwardly.

5. In combination, a seat-including structure having a downwardly projecting plunger, and a stiff apron surrounding and spaced from the plunger, a hollow upright structure receiving the plunger and received at its upper end by the apron and adapted to rest on a suitable base, and a cushion device within the upright against which the plunger bears downwardly; said upright structure affording inwardly a guide to the plunger and outwardly a guide to the apron.

In testimony whereof I affix my signature.

FRED G. PARKER.