

No. 831,777.

PATENTED SEPT. 25, 1906.

G. W. DRYER.
CAR SEAT.

APPLICATION FILED DEC. 27, 1900.

2 SHEETS—SHEET 1.

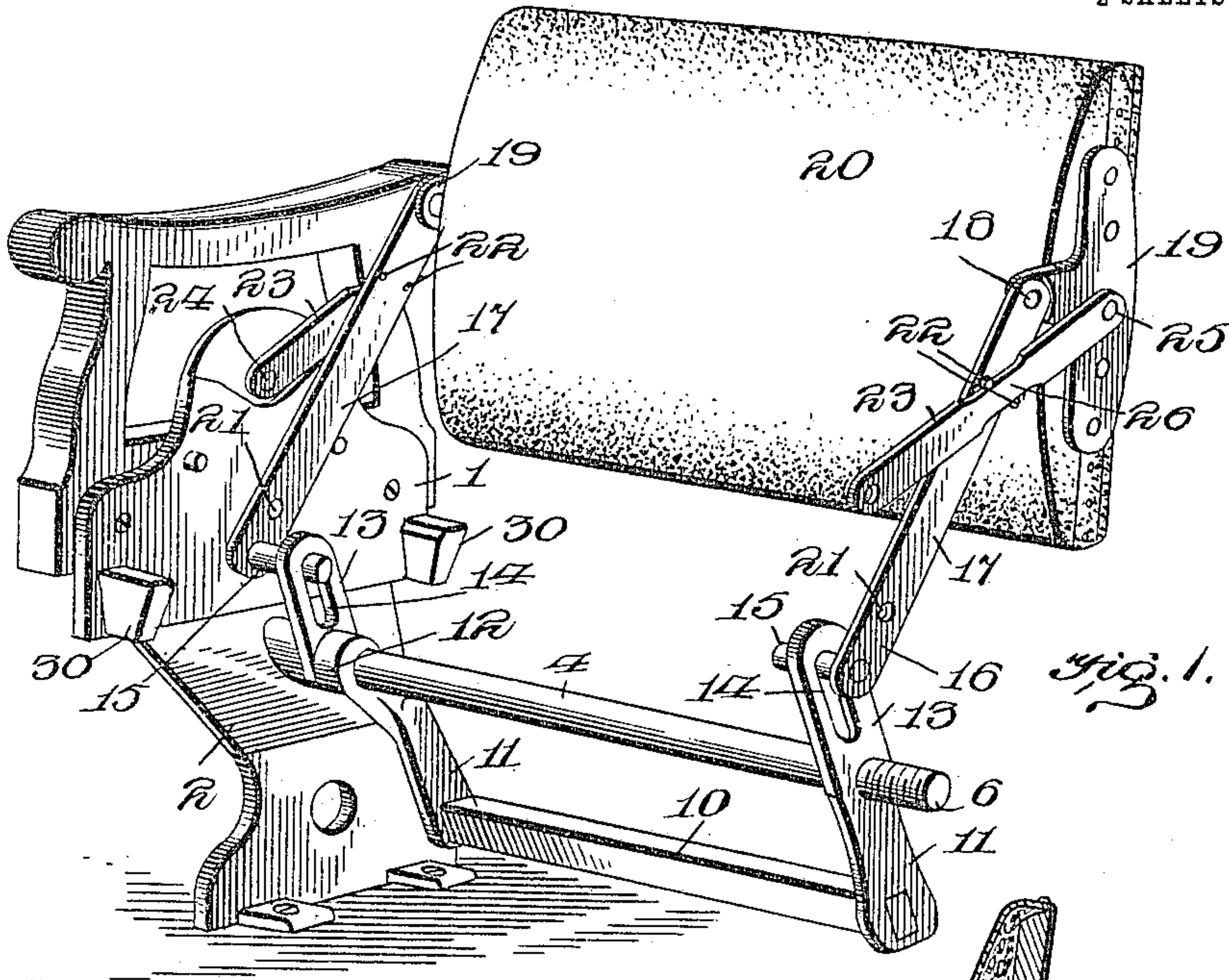
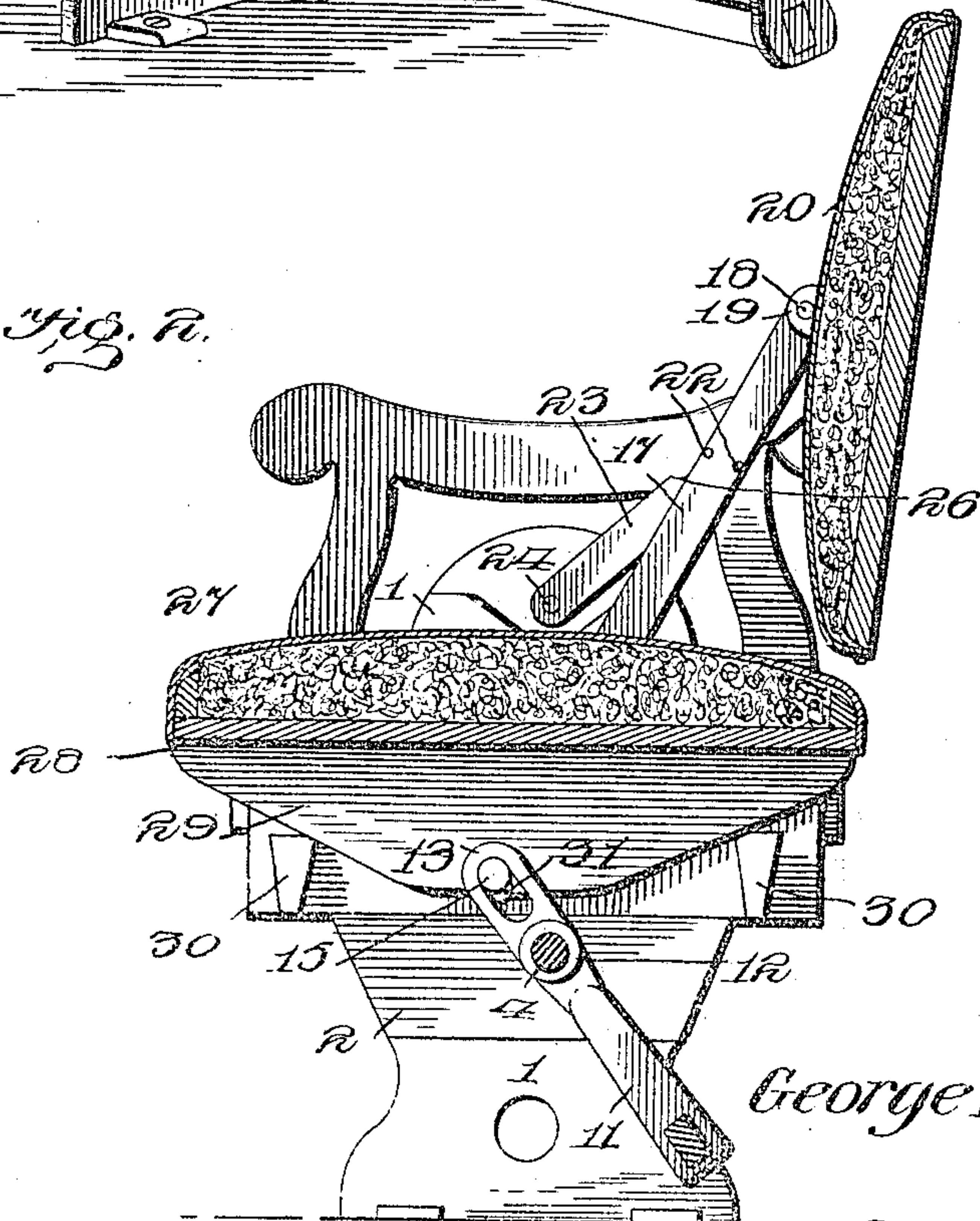


Fig. 1.



George W. Dryer.
Inventor

Witnesses
Geo. A. Byrne
R. M. Smith

By

E. J. Siggers
Attorney

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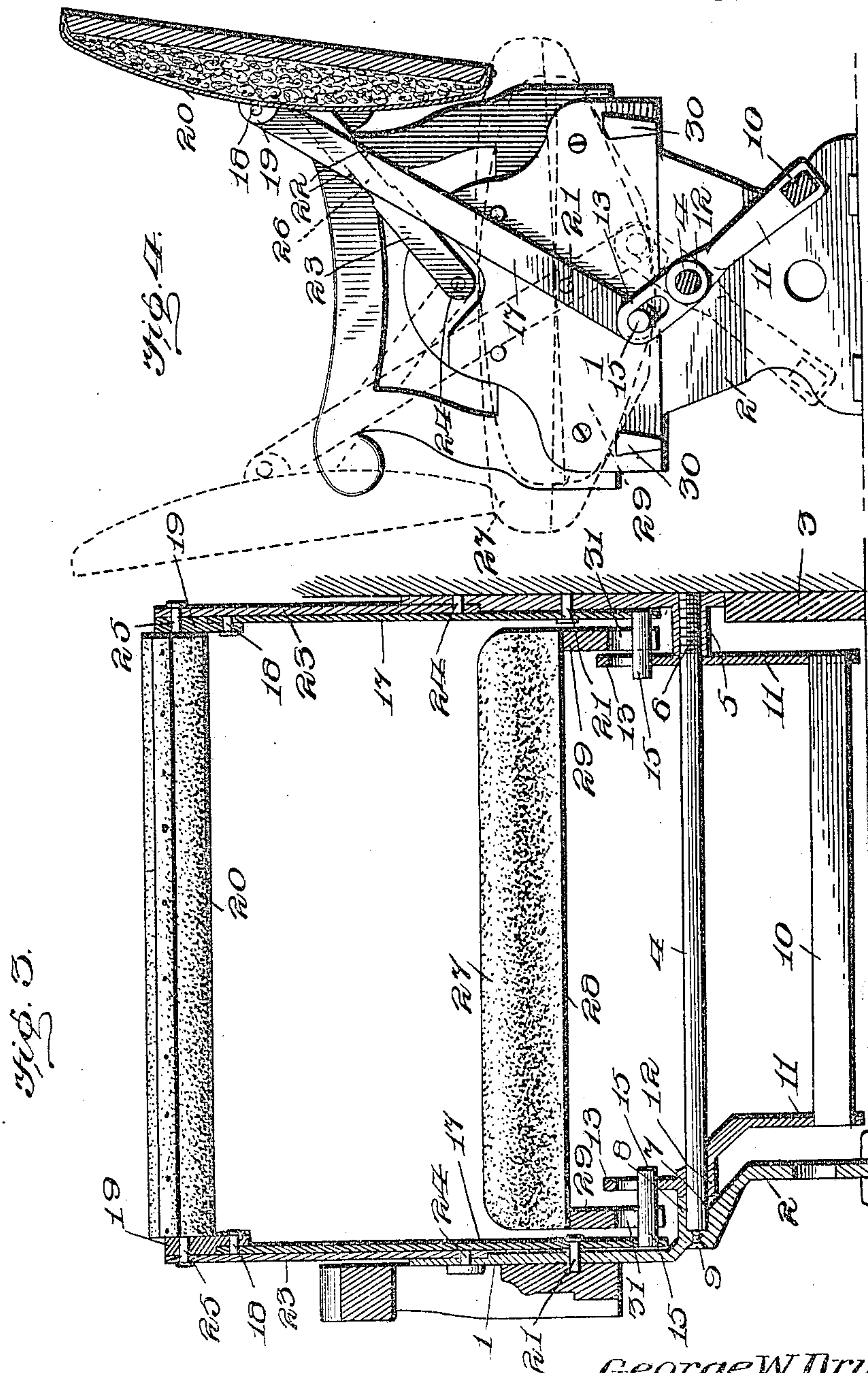


Fig. 3.

Fig. 4.

George W. Dryer.
Inventor

Witnesses:
Geo. Byrne,
R. M. Smith.

By

E. J. Figgis

Attorney

UNITED STATES PATENT OFFICE.

GEORGE WORDEN DRYER, OF NEW YORK, N. Y.

CAR-SEAT.

No. 831,777.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed December 27, 1900. Serial No. 41,266.

To all whom it may concern:

Be it known that I, GEORGE WORDEN DRYER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Car-Seat, of which the following is a specification.

This invention relates to car-seats; and the object in view is to provide a simple, strong, and reliable construction of seat embodying a shiftable back, together with a shiftable seat and foot-rest so combined with operating devices that the seat, back, and foot-rest may be easily and quickly shifted simultaneously to correspond with the direction in which the car is moving. The back is carried by supporting-arms which pivotally connect it with the seat-frame, and said arms have associated with them back tilting or supporting arms, and the arms of each set are provided one with a plurality of stop-shoulders and the other with a portion adapted to work between the stop-shoulders, thus providing for firmly holding the back in either of its adjusted positions without unduly weakening the carrying and tilting arms referred to. The carrying-arms are also provided with shifting-pins, and both the seat and the foot-rest are provided with slotted extensions, all of which are engaged with the shifting-pins on the carrying-arms, whereby in the shifting of the seat-back the seat and foot-rest are simultaneously shifted and all of the members brought to their proper positions.

The invention consists in a car-seat embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a car-seat, omitting the seat proper and the adjacent side frame in order to more clearly illustrate the construction and relative arrangement of the operating parts. Fig. 2 is a vertical transverse section showing the seat proper in position and illustrating the engagement between the seat-rockers and the shifting-pins on the carrying-arms. Fig. 3 is a vertical central longitudinal section through the seat complete. Fig. 4 is a vertical transverse section similar to Fig. 2, but omitting the seat proper and also showing in full and dotted lines the manner of shifting the seat-back and other parts.

Similar numerals of reference designate corresponding parts in all figures of the drawings.

The seat-frame in its general construction may be similar to any of the ordinary car-seats at present in use, and it will not, therefore, be necessary to enter into a detailed description of the same other than is necessary to set forth the construction, operation, and arrangement of the parts which constitute the present invention.

In the drawings, 1 designates a pair of end frames mounted upon a suitable pedestal or support 2 at one end and upon the usual ledge formed by the base or foot board 3 at the other end. The outer end frame 1 is shown as connected with the inner end frame by means of a bar or rod 4, which forms the fulcrum upon which the foot-rest hereinafter described is mounted to swing or oscillate. In order to firmly connect the end frames, the inner end frame is provided with an internally-threaded boss 5, into which the threaded end 6 of the fulcrum rod or bar 4 is firmly screwed. The outer end of the rod 4 is received in a socket 7 in a boss 8 on the inside of the outer end frame 1 or its pedestal 2 and is secured therein by means of a screw 9, passing through the outer end frame and screwing into a threaded socket in the end of the rod 4 in the manner illustrated in Fig. 3. In this way the two end frames are rigidly and firmly connected and at the same time a fulcrum is provided for the foot-rest.

The foot-rest comprises a bar 10, upon which the feet may be placed, and terminal arms 11, which extend upward and are provided with bearings 12 for the reception of the rod 4. Each of the arms projects above the fulcrum 4 and is provided with a lever extension 13. These lever extensions are formed with longitudinal slots 14, adapted to receive the shifting-pins 15, which are carried by the lower and shorter arms 16 of a pair of back-carrying arms 17. These arms connect pivotally, as at 18, to a pair of back-plates 19, secured to the opposite ends of the seat-back 20, and the said arms are fulcrumed at 21 upon the inner surfaces of the end frames 1.

Each of the carrying-arms 17 is provided with a pair of stop-shoulders 22, arranged near the opposite edges thereof, so as to leave sufficient space between them for the sliding movement of a pair of back tilting or posi-

tioning arms 23. Each arm 23 is pivotally connected at one end to the seat-frame, as at 24, and is pivotally connected at its opposite end 25 to one of the back-plates 19 beyond the pivotal connection 18 of the adjacent carrying-arm 17. Each back tilting or positioning arm 23 is preferably reduced in width at a point intermediate its ends, as indicated at 26, to adapt it to slide between the stop-shoulders 22 on the back-carrying arm 17. This does not materially weaken the arms 23 and forms a support for the arms 23, against which they are adapted to rest when the seat is thrown to one side or the other, thereby preventing the seat from dropping out of position. It is not, however, necessary in all cases to reduce the width of the positioning-arms, so long as the stop-pins on the back-carrying arms engage either side of the positioning-arms, so that these positioning-arms are rigidly supported when the seat-back is moved into extreme position on either side.

The seat proper or seat-cushion 27 has secured to its bottom 28 a pair of downwardly-extending rockers 29, which rest upon a pair of rocker-supporting lugs 30, projecting inward laterally from the end frames. The rockers 29 are located at or near the ends of the seat-frame and are provided about centrally with vertical slots 31, open at their lower ends, so as to enable the rockers to be set over and upon the shifting-pins 15 and associated therewith in the manner illustrated in Fig. 2. By an examination of Figs. 1 and 3 it will be noticed that the slotted extensions 13 of the foot-rest are set a sufficient distance forward from the end frames to leave spaces between such extensions and the inner adjacent faces of the carrying-arms to receive the slotted rockers 29, as better illustrated in Fig. 3. It will now be seen that when the back-carrying arms 17 are vibrated the lower members thereof below the fulcrums 21 will be thrown in the opposite direction, thus causing the shifting-pins to move backward or forward sufficiently to rock the foot-rest and shift the seat-cushion simultaneously by reason of the engagement between the said shifting-pins and the slotted extensions or rockers 29 of the seat-cushion and the slotted extensions 13 of the foot-rest. When the seat-back is shifted all the way across and brought to the limit of its movement in either direction, the shifting-pins 15 serve by reason of their engagement with the slotted extensions 13 of the foot-rest to lock the foot-rest and prevent the parts being shifted accidentally.

From the foregoing description it will be

seen that by throwing the seat-back over from one side to the other the seat-cushion and foot-rest are simultaneously shifted and positioned for use. It will further be noted that a single device on the back-carrying arms performs both operations—namely, that of shifting the seat-cushion and that of shifting the foot-rest; further, that the particular engagement and relation existing between the back-carrying arms and the back tilting or positioning arms insures a firm support for the tilting-arms upon the back-carrying arms and obviates any liability of the seat-back to fall below its proper position. The upper surfaces of the rocker-supporting lugs 30 are preferably rounded or beveled, so as to enable the beveled or inclined edges of the rockers 29 to rest and slide thereon during the shifting operation.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described car-seat will be readily apparent to those skilled in the art without further description, and it will be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In a seat, a supporting-frame including a pair of end frames, a rod fastening the two end frames together, a pair of terminal arms mounted upon said rod and having slotted extensions, carrying-arms pivoted to the end frames pivotally supporting at one end a back and at their other ends provided with a shifting-pin cooperating with the slot in the terminal arms, a pair of spaced pins on the carrying-arms, a back, a pair of back-tilting arms pivoted at one end to the end frames and at the other to the back and having a reduced portion adapted to cooperate with the said pins on the carrying-arms, a movable seat having downwardly-extending rockers adapted to fit over the shifting-pins of the carrying-arms, and means for supporting the seat in adjusted position, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE WORDEN DRYER.

Witnesses:

FRANK J. MASTEN,
CLARENCE B. LEE.