

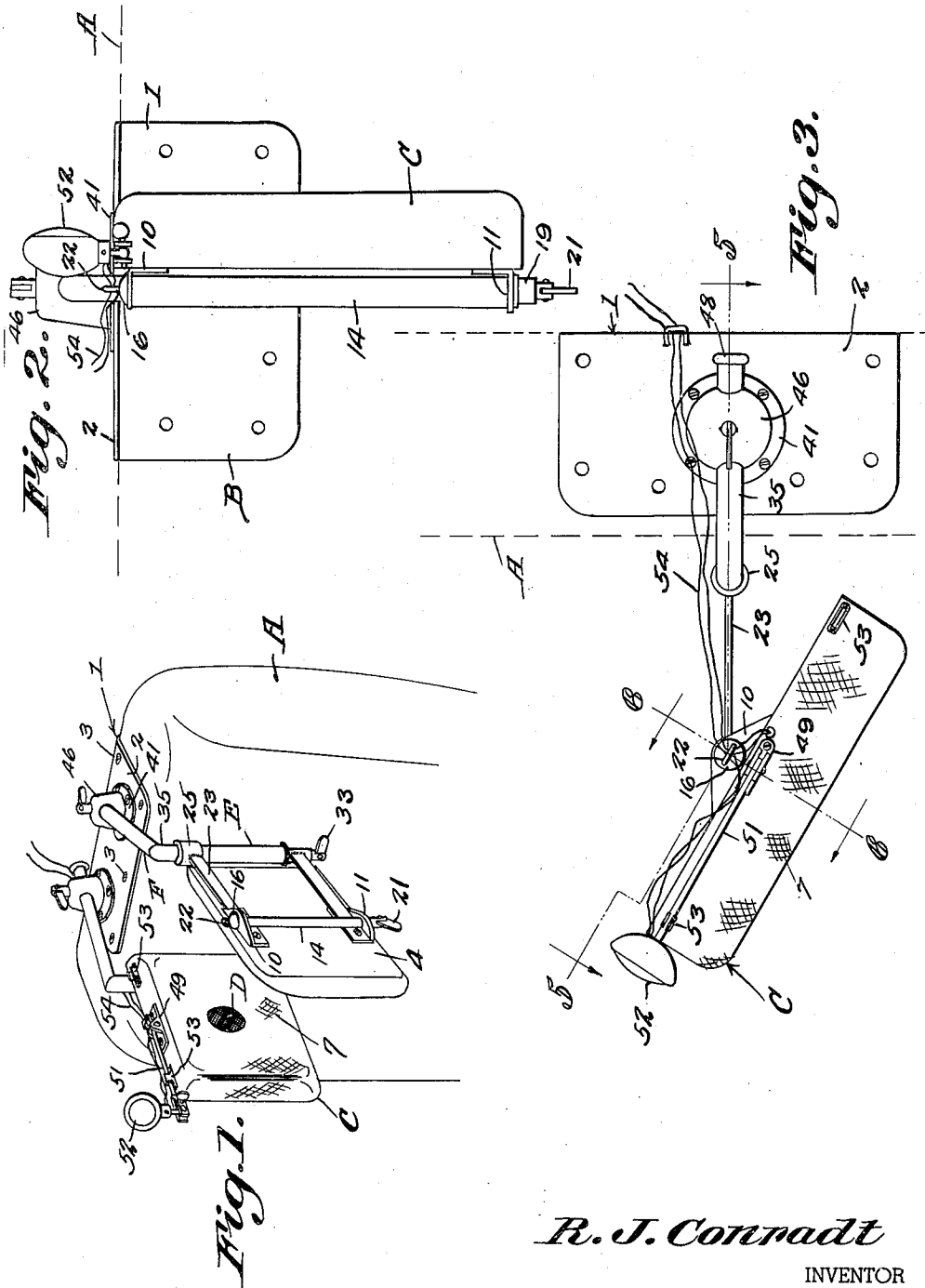
March 28, 1950

R. J. CONRADT
CHAIR ATTACHMENT DEVICE

2,501,993

Filed Dec. 10, 1946

3 Sheets-Sheet 1



R. J. Conradt

INVENTOR

BY *Chenoweth*.
ATTORNEYS.

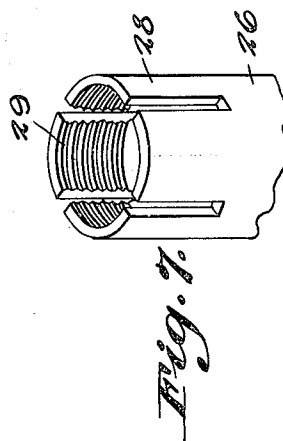
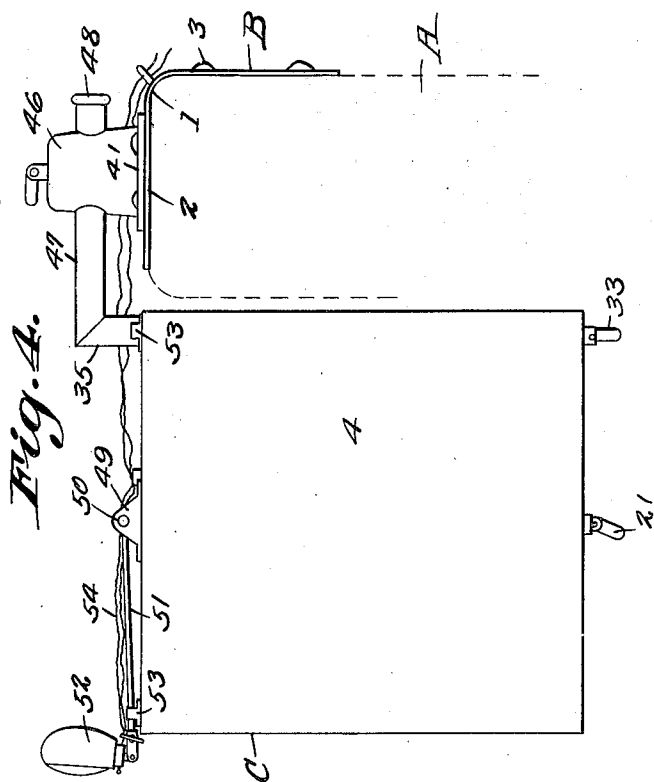
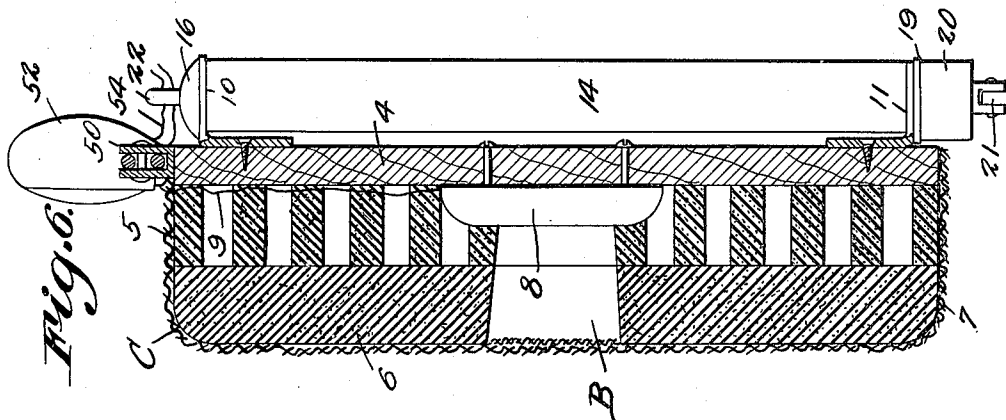
March 28, 1950

R. J. CONRADT
CHAIR ATTACHMENT DEVICE

2,501,993

Filed Dec. 10, 1946

3 Sheets-Sheet 2



R. J. Conradt

INVENTOR

BY *Chenoweth*
ATTORNEYS.

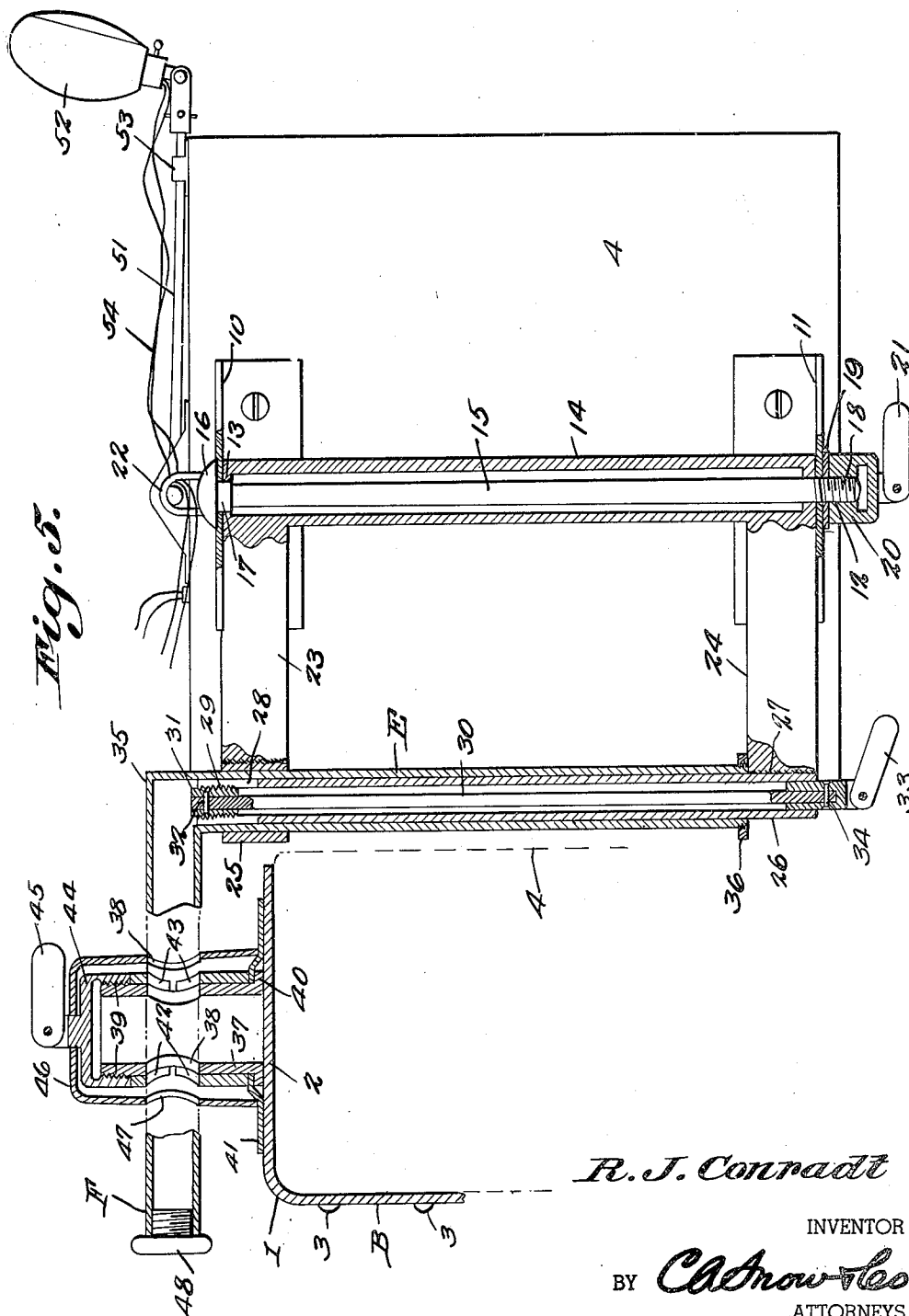
March 28, 1950

R. J. CONRADT
CHAIR ATTACHMENT DEVICE

2,501,993

Filed Dec. 10, 1946

3 Sheets-Sheet 3



R. J. Conradt

INVENTOR

BY *Chas. H. Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,501,993

CHAIR ATTACHMENT DEVICE

Richard J. Conradt, Rochester, N. Y.

Application December 10, 1946, Serial No. 715,278

2 Claims. (Cl. 155—177)

1

This invention relates to a new and improved chair attachment device of which the following is a specification.

The primary object of this invention resides in the provision of a new and improved attachment for seats in public conveyances such as buses, trains or the like which make available to the occupants of the seats therein a comfortable adjustable head rest which carries an adjustable reading lamp individually therewith thereby increasing the comfort of the passenger while in occupancy of the seat.

Another object of this invention is the provision of a chair improvement device of the character described which is provided with a speaker inherent in the construction of the headrest and which is adapted for selective operation in combination with a radio or phonograph means common to all of said seat headrests.

Still another object of this invention is the provision of means for the horizontal and vertical adjustment of the headrests relative to the chair to make them adaptable to the desires of any occupant of the chair, and the individual control for the selective operation of the individual speaker carried within the headrests of each chair.

Still another object of this invention is the provision of a chair improvement device of the character described which is quickly and easily adjustable and operable, and which is of simple, durable and relatively inexpensive design and construction.

Further improvements and advantages of this invention will readily appear to those skilled in the art when the following description is read in the light of the accompanying drawings in which:

Fig. 1 is a perspective pictorial view of the improvement device affixed to a chair.

Fig. 2 is a side elevation of the headrest.

Fig. 3 is a top plan view of the headrest.

Fig. 4 is a front elevation of the headrest.

Fig. 5 is a partial vertical section of the adjustable supporting means.

Fig. 6 is a vertical cross section of the headrest illustrating its construction.

Fig. 7 is a pictorial view of a partial section of the expansion tube.

Referring now to the accompanying drawings which illustrate the preferred embodiments of this invention and in which like numerals indicate similar parts throughout the drawings A designates the back of a chair or seat of the type

2

used in travelling conveyances such as buses, trains or the like.

A right angular mounting plate 1 is secured to the back of the chair A with one angularly leg 2 of the plate 1 horizontally secured on the top of and in the center of the chair back A with the second leg B fastened down the back of the chair A by means of set screws 3 or the like through the plate top and back.

The adjustable headrest C comprising the primary embodiment of this invention is secured to the plate to be suspended adjustably over the seating area from the back in a manner to be described at a future point in this specification.

The adjustable headrest C comprises a flat backing plate 4. On one side of this plate is secured, by a cement or the like, a cushion 5 of perforated foam rubber giving resilience thereto, and a second cushion 6 of spongy rubber is secured outside of the first layer to complete the cushion which is then covered with a fabric material 7 similar to the chair upholstery. A hole D is provided through the center of the two rubber cushions inwardly opening onto a headphone speaker 8 which is suitably secured to the backing plate outwardly therefrom and the wiring 9 therefor are carried upwardly therefrom to open outwardly through the top of the cushion.

A pair of angular swivel brackets 10 and 11 are horizontally secured rearwardly from the back of the plate 4 in spaced vertical alignment, each of said horizontally extended brackets is provided with an aperture the lower 12 being circular and the upper 13 being square.

A hollow cylindrical tube 14, with open ends therein, is adapted to fit between the two brackets in a vertical position and secured in such a position by a vertically inserted elongated carriage bolt 15 which is provided with a rounded head 16 and a depending square shoulder, 17, which is adapted to seat in the square aperture 13 of the upper bracket thus preventing the rotation of the bolt, and the lower end of this bolt is provided with a threaded shank 18 which extends downward through the lower circular aperture where it receives upwardly a metal washer 19 and an internally threaded cap nut 20 with a swivel lever 21 is threaded upwardly over the shank 18 to lock the hinge. An eye bolt or loop 22 is provided on the top of the bolt head 16 to provide a guide eye for the wiring.

The tube 14 is provided at its upper and lower ends, within the vertical confines of the brackets 10 and 11, with horizontally disposed legs 23 and 24 which extend in one direction in vertical align-

3

ment outwardly from the tube 14. The upper leg 23 terminates at its extended end in a circular vertical guide 25, while a hollow cylindrical tube 26 is vertically secured by weld 27 or the like to the extended termination of the arm 24. This tube 26 extends vertically upward in a clearance fit through the center of the cylindrical guide 25 where it terminates in a vertical split expansion end 28, as illustrated in Fig. 7, with internal threads 29 therein. An elongated cylindrical rod 30 is extended upwardly through said tube where it is received in the hollow center of an expansion plug 31, which is threaded downwardly in the threaded split end of said tube and a pin 32 is passed through said plug and said rod to firmly secure said rod in place and adapt rotation of said bolt to rotate said plug to selectively expand and contract the expansion end of said tube.

A swivel lever 33 is secured by a second pin 34 to the lower protruding end of said rod, below the lower termination of said tube, to facilitate the rotation of said rod.

A right angular hollow supporting arm 35 is positioned with one leg E thereof inserted downwardly through said cylindrical guide telescoping over the tube 26 and adapted to be securely adjustably positioned by the expansion of the split end of the tube outwardly against the inner walls thereof. A circular flange 36 about the lower end of leg E provides a stop to prevent the leg from slipping completely out of the guide 25 when being vertically adjusted therein.

The second horizontal leg F of the arm 35 is adjustably supported adjacent the plate 2 in the manner now to be described.

A hollow cylindrical adjusting post tube 37, provided with a pair of elongated vertical holes 38 diametrically oppositely disposed in the walls of said post, an externally threaded upper end 39 and a small circular flange 40 from the bottom thereof is vertically seated on said flanged bottom in a predetermined position on the horizontal plate 2 on the chair back. A hollow centered circular anchor plate 41, provided with spaced screw holes thereabout is slipped down over the post 37 where it rotatably secures the flange 40 to the plate 2 by means of screws inserted in said screw holes in the plate and said chair mounting plate. A pair of locking clamps 42 are then telescoped over the post 37 one above the other with their pairs of semi-circular bosses 43 adjacently disposed one above the other. An internally threaded locking cap 44, provided with a swivel lever 45, is threaded downward over said post to an abutting position with the upper locking clamp adapting the adjustable locking force of said clamps. A finished cap 46 for the locking post is loosely slipped over the entire assembly to rest with its lower edge on the anchor plate 41. This cap is provided with diametrically opposite elongated holes 47 adapted to align with the holes 38 of the post and the holes formed by the adjacent semi-circular bosses 43 of the locking clamps.

Thus by backing off on the locking cap 44 the second horizontal arm F of the supporting arm 35 may be inserted through said cover, post and clamps to extend there beyond on the opposite side thereof, and the screw lock cap 44 is used to adjustably vary the extension thereof to selectively position the described headrest 7 relative to the chair back. A cap plug 48 is threaded on the end of said extension to form a stop for said extension when brought to abutment with the cap 46.

Thus it may be seen that a headrest has been

4

provided which is adjustable relative to the chair back A as well as horizontally adjustable on the carriage bolt 15 within the hollow tube 14, by actuation of the swivel lever 21 and cap 20, and vertically adjustable relative to the arm E by the expanding and contracting of the split end 28 of the expansion tube 26 by the means provided for the rotation of the extended rod 30 and the plug 31 making possible the vertical adjustment of the tube 26 within said arm E.

A bracket 49 is secured to the top of the headrest 7 and is adapted by a horizontal transverse pin 50 therethrough to pivotally support one end of an extension arm 51, which is of a length equal to one-half that of the headrest, and on whose end is removably secured a reading light 52 adapted for universal movement thereabout. A pair of spring clips 53 are provided on the top of the headrest 7 and at each end thereof in alignment with the arc of pivotation of the arm 51 adapting the removable clamping of said arm in a horizontal position adjacent the top of the headrest 7. The wiring 54 for the energization of the light 52 is passed through the eye bolt or loop 22 and from there rearwardly over the mounting plate 2 to be carried companion with the wiring for the speaker 8 to their proper source.

The speaker controls are not set forth as a part of this invention but they could be of the conventional type having an enclosed panel with a selective switch and volume control thereon and adapting the selective use of the speaker with radio or phonograph means and said control panel could be housed in a small box or the like which could be strapped or otherwise secured to the arm of the chair provided with the headrest in such a manner as to make it convenient to the occupant of the chair for control of the selective operation of the speaker.

It is also to be understood that the headrest 7 may be provided singularly as illustrated in Fig. 3, or in cooperative pairs as illustrated in Fig. 1, and further these rests could be normally housed in such a manner within the surface of the chair back so as to form a compact part therewith to be removed from said housing only when their use is desired.

It may also be seen that this invention provides for an original attachment for public conveyance seats which will add comfort to the physical needs of the passengers as well as a luxurious amusement for listening pleasure combined with the added feature of an adjustable reading light.

Thus having described and explained the construction and operation of this invention and with full belief that modifications in size, shape, and general characteristics would not constitute departure from the spirit of this invention what I desire to claim in Letters Patent is:

1. In a chair attachment, a headrest, a headrest support comprising, a plate horizontally secured to the back of said chair, a cylindrical post with elongated holes diametrically in the walls rotatably secured to said plate, a pair of clamping discs telescopically mounted over said post, a screw cap threaded over the upper end thereof adapted to adjustably regulate the spaced relationship of said clamping members, an L-shaped supporting arm, one leg of said arm slidably mounted in said post holes and adjustably clamped by said clamping discs and said screw cap, a hollow tube having a pair of extending arms therefrom, a cylindrical guide carried by one of said arms, said guide slidably mounted

5

over the second vertically depending leg of said L-shaped arm, an expandible tube carried by the second arm of said hollow tube adapted to be telescoped within said vertical leg of said L-shaped arm, means carried external said expansion tube adapted to expand and contract said tube within said arm for the vertical adjustment of said hollow tube and said arms on said leg, a pin vertically carried by said headrest adapted to be received by said tube for the horizontal pivotation of said headrest thereabout, and means for tightening said pin within said tube to selectively position said headrest thereon.

2. A device as set forth in claim 1 wherein said headrest comprises a backing plate, a layer of perforated foamy rubber carried on one surface of said plate, a layer of sponge rubber is secured to said foamy rubber, a layer of fabric covers

6

said headrest, and two vertically spaced brackets are carried by the rear of said plate to receive said hinge pin therethrough.

RICHARD J. CONRADT.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
969,251	Denzer	Sept. 6, 1910
1,515,467	Draving	Nov. 11, 1924
1,845,401	Dietrich	Feb. 16, 1932
1,864,615	Quinby	June 28, 1932
2,031,643	Granovsky	Feb. 25, 1936
2,107,404	Wilkin	Feb. 8, 1938