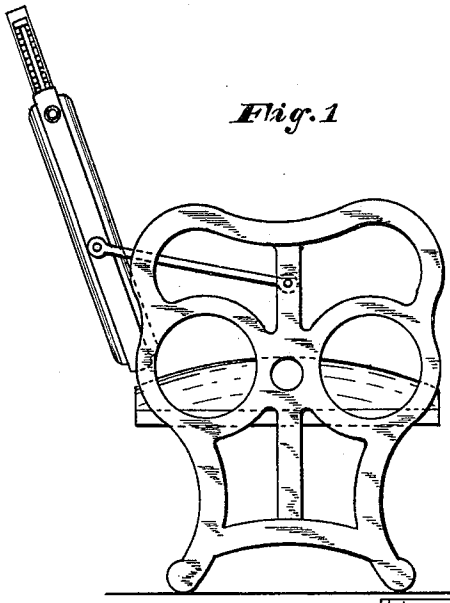
(No Model.) 3 Sheets—Sheet 1.

H. W. FACKRELL.

HEAD REST FOR CAR SEATS.

No. 365,248. Patented June 21, 1887.

Fig. 1



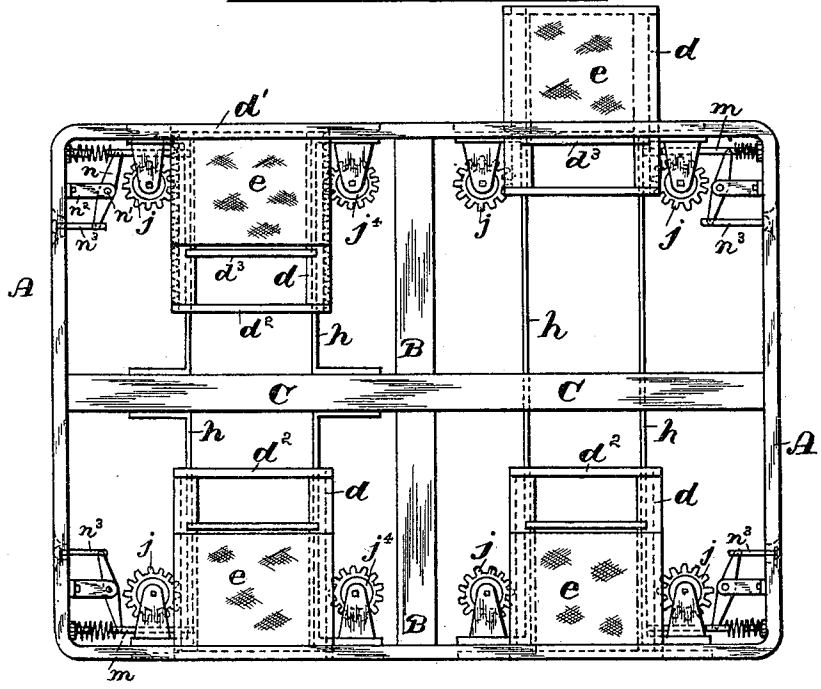


Fig. 2

WITNESSES:

J. L. Bartine.

Wm. E. Blewett.

INVENTOR:

H. Walter Fackrell.

BY Campbell & Co. ATT'YS.

N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 3 Sheets—Sheet 2.

H. W. FACKRELL.

HEAD REST FOR CAR SEATS.

No. 365,248. Patented June 21, 1887.

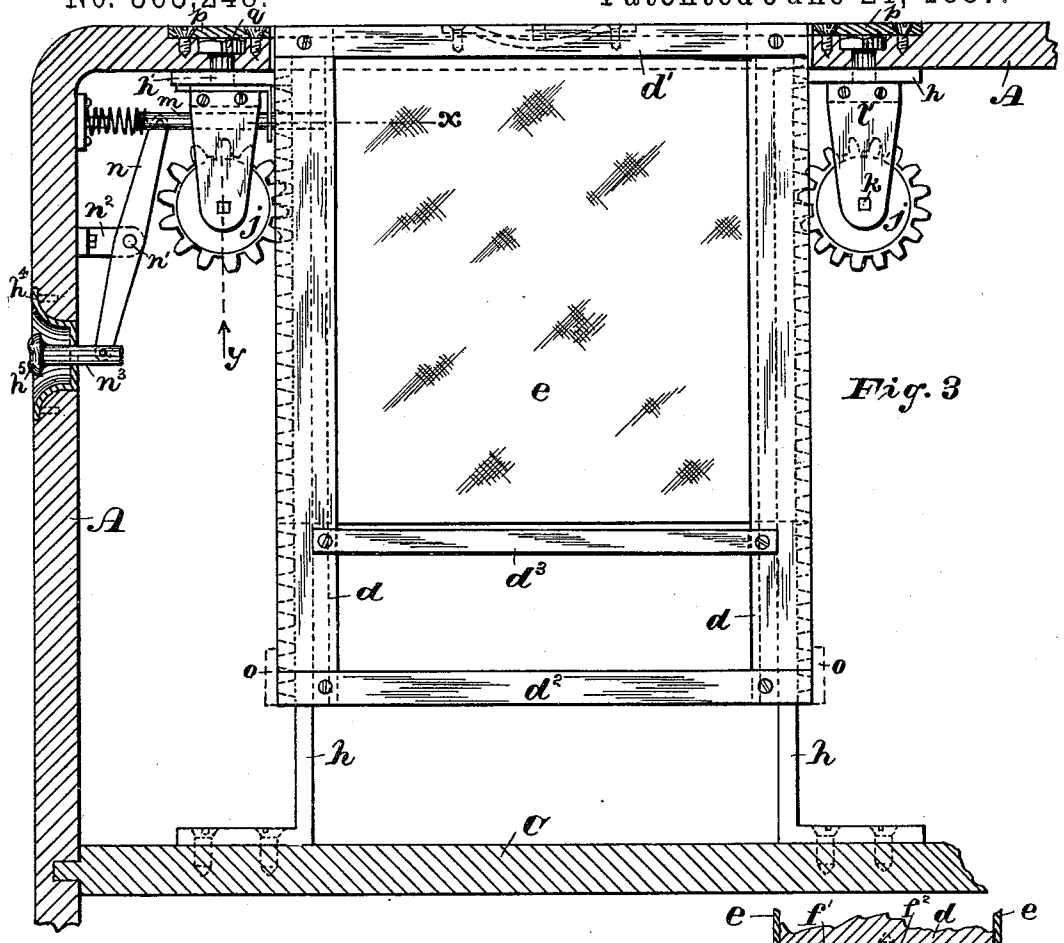


Fig. 3

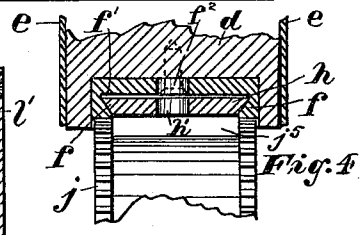


Fig. 4

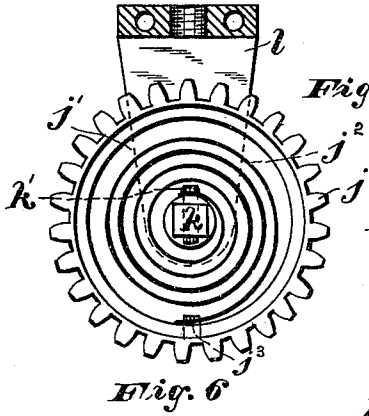


Fig. 6

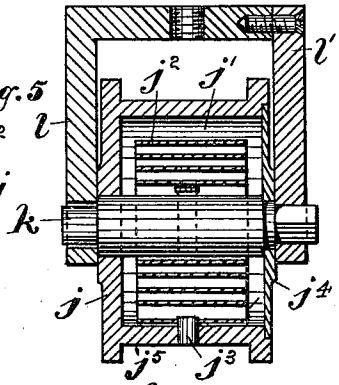


Fig. 5

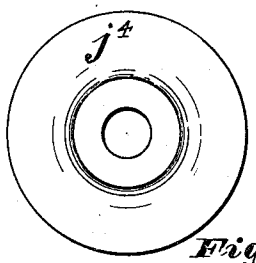


Fig. 7

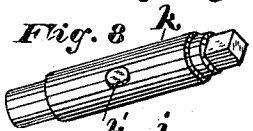


Fig. 8

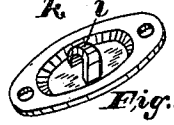


Fig. 9

WITNESSES:

J. R. Bartine.

Wm. E. Bleuett.

INVENTOR:

H. Walter Fackrell

BY Campbell & Co. ATT'YS.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 3 Sheets—Sheet 3.

H. W. FACKRELL.

HEAD REST FOR CAR SEATS.

No. 365,248. Patented June 21, 1887.

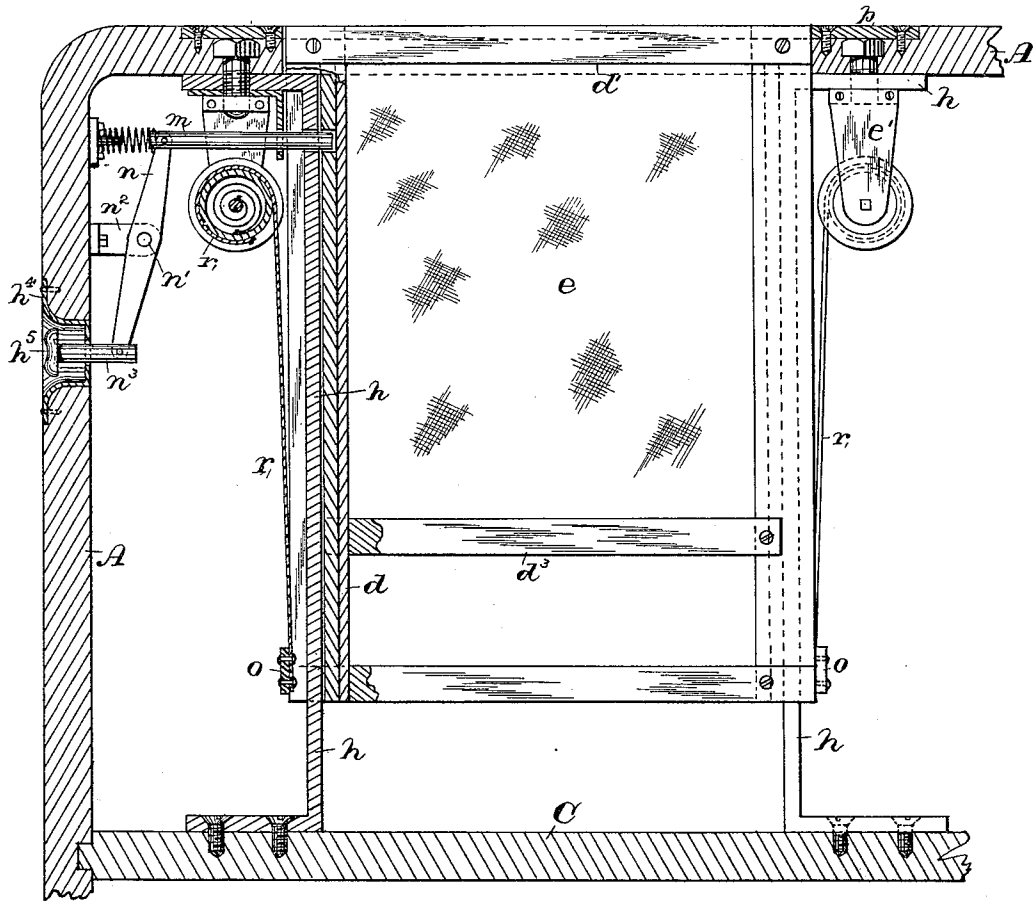


Fig. 10

WITNESSES:

J. L. Bantine.

J. L. Trussell Jr.

INVENTOR:

H. Walter Fackrell

BY Campbell & Co ATT'YS.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

H. WALTER FACKRELL, OF BELLEVILLE, NEW JERSEY.

HEAD-REST FOR CAR-SEATS.

SPECIFICATION forming part of Letters Patent No. 365,248, dated June 21, 1887.

Application filed February 3, 1887. Serial No. 226,402. (No model.)

To all whom it may concern:

Be it known that I, H. WALTER FACKRELL, a citizen of the United States, residing at Belleville, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Head-Rests for Car-Seats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention is designed to provide a rest for the head on the seats in railway-cars, which when in use affords a comfortable support for the head, and when not in use may be readily removed or put out of sight, thus restoring the seat to its ordinary condition, and which is always at hand ready for use.

In the accompanying drawings, Figure 1, Sheet 1, is a side elevation of a car-seat, from the back of which my improved rest is shown to project. Fig. 2 is an elevation of the interior of the back of the car-seat, indicating the arrangement of the head-rests therein and the construction and relation of the mechanism for operating the same. Fig. 3, Sheet 2, is an enlarged view of one of the rests and its actuating mechanism. Fig. 4 is a sectional view of a portion of the frame, grooved rack, &c., of the rest taken through *x*, Fig. 3, and a top view of a portion of the spring-actuated cog-wheel. Fig. 5 is a section taken through *y*, Fig. 3. Fig. 6 is an elevation of the interior of the spring-actuated cog-wheel and a section of the supporting-bracket. Fig. 7 is a view of a journal plate of the cog-wheel. Fig. 8 is a perspective view of a shaft, to which one end of the spiral spring arranged in the chambered cog-wheel is secured and upon which said wheel turns; and Fig. 9 is a similar view of a finger-plate secured to the top of the head-rest. On Sheet 3, Fig. 10, is a view, similar to Fig. 3, illustrating a construction in which the ratchets and cogs are dispensed with.

In the above-described views, A indicates the outside frame portion of the back of the car-seat, and B and C the intersecting interior braces of the same, respectively. In each of the four divisions of the interior of the back a head-rest and the mechanism for actuating the same are arranged substantially as indicated in Fig. 2, two of said rests being arranged so as to project from one edge of the back and the remaining two from the opposite edge thereof.

The head-rest, illustrated more in detail in Figs. 3 and 4, consists of a frame of suitable shape, having the grooved side strips, *d*, and the cross-pieces d' d^2, across which is tightly stretched a cloth covering, *e*, or other material of suitable strength and finish, the said covering extending preferably out to the edges of the frame-pieces, or over the same if desirable, in order to hide that portion of the rest, as shown in Fig. 4. Within the grooved side strips of the frame are secured grooved racks consisting of the toothed portions *f*, between which is formed a groove, f', which is preferably undercut, as indicated in Fig. 4, the extremities of the teeth in the rack portions *f* being flush with or countersunk below the outside of the side-frame strips *d*.

Fastened to the frame portions A and C, as indicated on the left in Fig. 2 and in Fig. 3, or extending continuously through the cross-piece *c*, as shown on the right in Fig. 2, are ways *h*, which lie in the groove f', as in Fig. 4, and act as guides to direct and control the movement of the sliding head-rest, said ways or strips conforming in cross-section to the groove f', to prevent any looseness or rattling of the parts.

The head-rest may either be thrown up automatically from the seat by suitable mechanism, one form of which is illustrated in the drawings, and depressed or returned into the seat by hand, or the mechanism shown in said drawings may be reversed, so as to return the rest into the seat automatically, while the same is lifted from its receptacle by hand by means of a suitable finger-piece, *i*, indicated by dotted lines on Fig. 3, and shown in perspective in Fig. 9, detached from the rest.

When constructed as shown, the rest-lifting mechanism consists of a cog-wheel, *j*, the teeth of which mesh with the rack on the sliding rest, and provided with a chamber, *j'*, within

which is arranged a spiral spring, j^2, one end of which is fastened to the chambered wheel, as at j^3, Fig. 5, the other end of said spring being secured to the stationary shaft k, as at k', Fig. 5. A plate, j^4, closes up the open side of the chambered wheel and through said plate, and the opposite side of the wheel the shaft k projects into the depending hangers l l' of the bracket L, one of said hangers, as l', being removably secured to the top of the bracket to permit the removal and insertion of the chambered wheel, as will be understood by reference to Fig. 5. One end of the shaft k is squared to fit in a square opening in one of the hangers, so as to hold said shaft stationary while the chambered wheel is turning to wind up the spring around the shaft.

During the downward movement of the head-rest the chambered wheel is caused to turn in the direction indicated by the arrow in Fig. 6, thereby winding up the spring; and when the rest reaches its lowest position and is entirely within the seat, as indicated in Fig. 3, a spring-actuated plunger, m, working through a perforation, h', in the way h, engages an opening, f^2, in the grooved racks, as shown in Figs. 1 and 4, and holds the head-rest down within the seat.

Upon the withdrawal of the plunger from the opening f^2 the power of the coiled springs throws the rest upward from the seat, as shown in Figs. 1 and 2, the extent of the projection of the rest being limited by the stop-piece d^3, which strikes the under side of the frame portion A of the seat. Any other form of stop which will answer the purpose may be used in lieu of the cross-piece d^3.

For operating the spring-actuated plunger so as to withdraw the same from holding-engagement with the rack, a lever, n, pivoted at n' to an arm, n^2, is used, one end of said lever being pivotally attached to the plunger and the opposite end to a finger-piece, n^3, projecting out through the side of the seat, as in Fig. 3, at which point is arranged a recessed plate, n^4, which presents a finished appearance and provides a receptacle for the button n^5 when depressed.

Instead of providing the stop d^3 to limit the upward movement of the rest, a series of openings similar to f^2 may be formed in the grooved rack or in the frame of the rest, with which the plunger engages automatically and the rest permitted to project upward as far as may be desired.

While the mechanism illustrated in the figures of the drawings for communicating the lifting-power of the spring to the rest and for winding the spring is advantageous, on account of its strength and positive action, I may dispense with the teeth on both the rack or grooved plate and the chambered wheel and use instead a strap, r, fastened at one end to the outside of the said wheel in the groove j^5 and wound therearound, the other end of said strap being carried down and fastened to a cross-strip, o, extending across the grooved plate outside of the ways h, as dotted on Fig. 3 and as indicated in Fig. 10.

Around the opening in the top of the frame A, through which the rest projects, is arranged a plate, p, as indicated in Fig. 3, and through the top of said frame a bolt, q, passes, which secures the brackets l in their proper position. These features, as well as other details of construction, may be varied without departing from the spirit of my invention.

If desirable, the head-rest may be cushioned to render the support more comfortable, as will be understood.

Having thus described my invention, what I claim as new, is—

1. In a car or other seat, the combination, with the back thereof, of a head rest or support arranged in the back of said seat and constructed and operating to be projected automatically from said seat, and mechanism constructed and arranged to cause the automatic projection of said rest, for the purposes set forth.

2. In a car or other seat, the combination, with the back thereof, of a head rest or support arranged in the back of said seat and constructed and operating to be projected automatically from said seat, mechanism constructed and arranged to cause the automatic projection of said rest, a detent arranged to retain said rest within the seat until released, and a stop for limiting the upward movement of said rest, for the purposes set forth.

3. In a car or other seat, the combination, with the back thereof, of a head-rest provided with a grooved rack or racks thereon, and arranged in the back of said seat, guiding rods or ways lying in the groove in said racks on which said rest slides, a cog-wheel meshing with the teeth on said racks, and provided with a spring arranged and operating in relation to said wheel for the purposes set forth, a detent arranged to retain said rest within the seat until released, and a stop for limiting the upward movement of said rest, for the purposes set forth.

4. In a car or other seat, the combination, with the back thereof, of a head rest or support provided with undercut grooves thereon, guiding rods or ways fitting in and conforming to said undercut grooves on which said rest slides, mechanism constructed and arranged to cause the automatic projection of said head-rest, a detent constructed and arranged to retain said rest within the seat until released, and a stop for limiting the upward movement of said head-rest, for the purposes set forth.

5. In a car or other seat, the combination, with the back thereof, of a head-rest provided with a grooved rack or racks thereon, guiding rods or ways lying in said groove in said racks on which said rest slides, said ways and racks being perforated to receive a detent, a cog-wheel meshing with said rack, a spring ar-

ranged in relation to said cog-wheel for the purpose set forth, a spring-actuated plunger or detent, *m*, projecting into the perforations in said ways and racks as set forth, a pivoted lever, *n*, and a finger-piece attached to said lever and projecting through the frame of said seat, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 25th day of January, 1887.

H. WALTER FACKRELL.

Witnesses:
FREDK. F. CAMPBELL,
FREDK. C. FRAENTZEL.