

**EVOLUTION OF THE TRAP.**

From 1853 to 1897 Illustrated.

Hub October 1897 page 437 - December 1900 page 401.

The application of the term "Trap" to vehicles that can be converted from two to four passengers, or the reverse, by changing the position of one or both seats, is justified by, its origin in connection with carriages. The term is an English one, and was first applied to a gig, built with an extension, back of the seat, forming a box in which sportsmen carried their dogs. The back end was provided with a hinged door, which was let down when access was desired to the box. This door was termed a trap door and the curtailment of the name left "trap" as the designation for the vehicle. This vehicle became known afterward as a "dog cart," while the enlarged body on four wheels retained the original designation. After a time "trap" obtained hold as a colloquialism in England synonymous with the term "turnout" in this country, when reference was made to a pleasure carriage and its necessary adjuncts. The term however did not obtain a foothold in this country until the advent of adjustable seat carriages having tail boards, applied to these the term is sufficiently definite, to indicate the general character of the vehicle, but its application to vehicles that cannot be adjusted to accommodate two or four passengers, by changing the position of one or both seats and to enclose one seat, so that it cannot be seen when one only is used, is a misnomer and brands

had a top to the main seat only. The great market for these carriages was in the Southern States, but large numbers were used in the West and the northern coast States. As will be seen by the illustrations the construction was very simple. When used for two passengers only, the main seat was placed as shown in Fig. 1. If the extra seat was required the main seat, which was hung upon four irons, each having a square hooked end, which extended over and around the edge of strips of irons secured to the top of and extending the full length of the body, the edges projecting about three eighths of an inch beyond the wood, was released by turning a thumb screw, and slid back to the position shown in Fig. 2. The half circle section, which was secured to the front deck of the body by hinges, was turned forward and formed a second seat, as shown also in Fig. 2. This slide seat may be justly claimed as the progenitor of the

trap of today, but many were the changes before the vehicle of the present was reached.

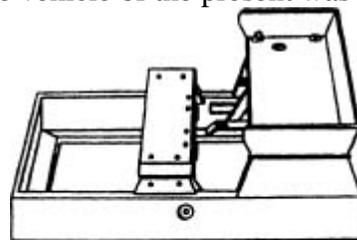


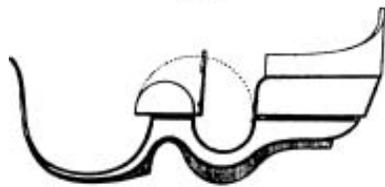
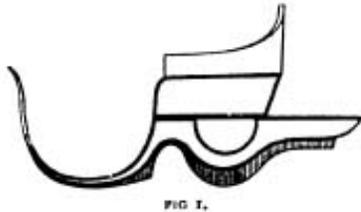
FIG. 3.



FIG. 4.

the one applying it as one ignorant of the nomenclature of his art.

Adjustable seat vehicles, however, are not new to the carriage trade. They were popular fifty years ago and the present trap is but the outgrowth from the "slide seat" of former days. For many years prior to 1857 they were manufactured in large numbers, and no dealer or general carriage builder, considered his stock complete without the "slide seat." We do not know that we can determine, to a certainty the style of the original, but the one predominating style prior to 1860 is that shown by Figs. 1 and 2, which represent the body when fitted for two and when changed to accommodate four passengers; some were provided with an extension top, the front bows of which were attached to the turn over seat, but the majority



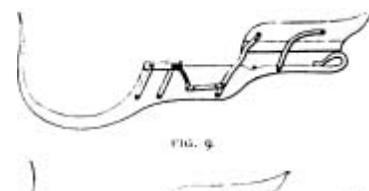
**FIG. 2.**

Beginning with 1857 and coming down to September of 1897, three hundred and thirty five patents have been issued in this country for adjustable seat vehicles, some of which were taken out by citizens of other countries. It is more than probable that many designs and devices have been introduced that were not patented, but as we have no reliable record of these, we will in this article confine ourselves to the original, which so far as we know, was never patented, and to those taken from the patent office papers. The first patent of which we have a record was taken out by G. & D. Cook, of New Haven, Connecticut, on February 3, 1857 [16,528]. This is shown by Figs. 3 and 4, the first as fitted for four passengers and the second with the front seat, thrown back and the main seat moved forward to accommodate two passengers only. The Cooks built large numbers of these vehicles and shipped them to every part of the country where pleasure in carriages were in demand. One G. J. Locus obtained a patent, dated April 27, 1858 [20,127], for a jump

seat, which has a resemblance to the Cook vehicle, but operated

somewhat differently. This is shown in its two positions by Figs. 5 and 6.

William A. Bird, of Newark, New Jersey, took out a patent dated April 17, 1860 [27,881], for



an improved slide seat. This is, so far as we know, the first if not only patent taken out for a slide seat to be used on a square body. In its construction the front of extra seat is made to turn backward and down, and the main seat was hung upon an oblong looped irons, the upper arms of which were attached to the inside of the seat rises, and the lower loops, which were provided with a channel on the outer side traveled upon. T irons were attached to the inside of the body. The arrangement was very simple and complete and quite a large number was put upon the market, Two views of this body are shown by Figs. 7 and 8.

The next important patent was taken out by one J. C. Kimball, dated January 1, 1861 [31,023]. The working features of this are shown by Figs. 9 and 10. This is the first in which the seats worked automatically; in it the moving of the main seat raised or lowered the extra seat. The ends of the front seat were hinged to throw inward when folded so as to convert the vehicle into one for two passengers. This became known as the "Eureka," and great numbers were built. A patent dated January 28, 1862 [34,261], was granted to James T. Minard, of Danbury, New Hampshire, for an extra seat at the rear end of the body. This seat consisted of a hinged deck panel, to the under side of which were hinged the seat, bottom and two seat ends; which all folded against the deck panel when it was closed, but which when the panel was thrown back were opened

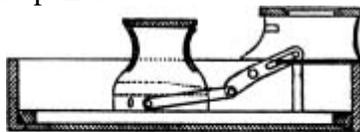


FIG. 5.

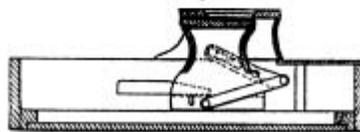
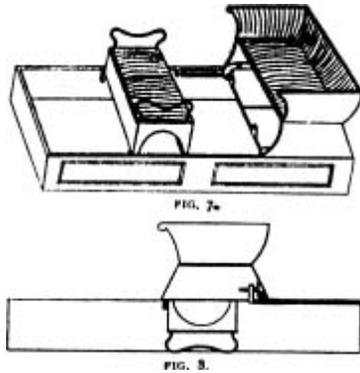


FIG. 6.

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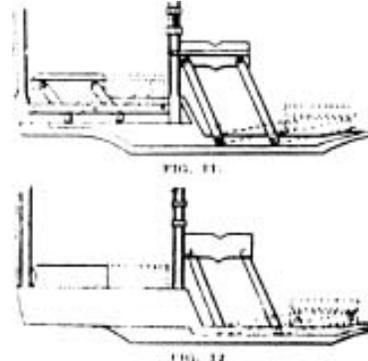
and completed the seat. We mention this as it appears to be the first attempt to create a seat



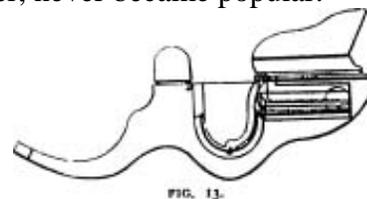
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which folded into place from the rear. The "Kimball" jump seat, for which a patent was granted to Charles P. Kimball, of Portland, Maine, the first President of the Carriage Builders' National Association, dated November 15, 1864 [45,050], was another radical departure and was the first in which both seats were supported by movable irons, so that the rear, as well as the, front seat, could be thrown forward or back. It is shown by



Figs. 11 and 12. Although primarily designed for a standing top vehicle, it became one of the most popular jump seats introduced it was the predecessor of all in which the seats rested upon single supports. Another patent as taken out by Mr. Kimball bearing date September 24, 1867 [69,102], in which adjustable stops were provided. This latter improvement was undoubtedly an important factor in popularizing the "Kimball" jump seat. A patent was granted to George Gregory, dated December 26, 1861 [51,780], [Fig. 13.] for a "Turnout Seat," in which the rear seat was made up in sections so hinged that they could be folded against the bottom when the extra seat was turned down and but one seat used. It, however, never became popular.

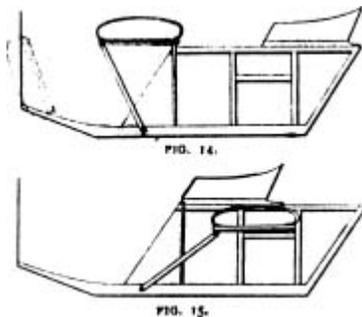


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was closed, but which when the panel was thrown back were opened

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One other patent was granted in 1865; but it was of minor importance. Three patents were taken out in 1866, two of which have no bearing on the subject from our standpoint. One, however, granted to Richard Walker, Batavia, New York, dated January 13, 1866 [52,299], deserves notice, not so much for its value as for its application of the loop iron as patented by Bird, to a body constructed much like the of fashioned slide seat as shown by Figs. 1 and 2. He, also applied it to a square box wagon. Fig. 11 shows this with seats arranged for four persons by throwing the small front seat down and sliding the rear seat forward. The body is changed to accommodate but two. During the year 1867 five patents were issued, two only of which deserve special mention. One patented

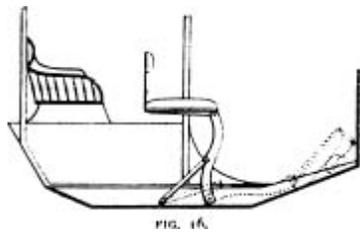


October 1, 1867, by R. F. Briggs, of Amesbury, Massachusetts, two views of which are shown by Figs. **14** and **15**; the dotted line on Fig. 14 shows the course of the front seat when thrown forward against the dash. The patent relates solely to the

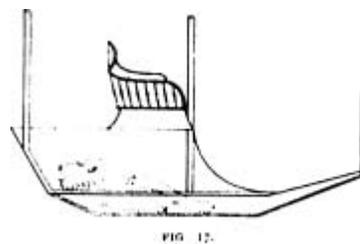
The year 1868 is accredited with four patents. One taken out by Samuel N. Beecher, of Milor Connecticut, dated March 24, 1868 [75,841], was for a slide seat, but the improvement was in dividing the extra or front seat into two parts, hinging them together so as to admit a free entrance to the rear seat by lifting one of the hinged sections. Another, patented by J. Fleming, of Philadelphia, Pennsylvania dated April 7, 1868 [76,428], was for adjustable seats similar to the "Kimball," but working on differently constructed legs. A third, patented April 21, 1868 [77,023] was by H. H. Forbes and H. C. Sears, of New Bedford, Massachusetts, and a fourth, patented May 12, 1868 [77,838], by Lewis Pray, of Portland, Maine, were each based upon cross bars attached to the front seat, by which it could be thrown forward or back and by which it was supported when in use, the general principle was alike in both. In 1869, two patents were issued, but in neither were there anything; radically different from others mentioned.

These bring it down to the year 1870, during which and the succeeding years which time the number of patents taken out was increased and radical changes, embracing many new features introduced. It was our original intention to have completed this article in one number of The Horse but we find it impossible to do so and give anything like a fair idea of the many changes that

arrangement of the front seat. This is we believe, the first patent issued to an Amesbury



manufacturer for an adjustable seat. The other patent, issued in 1867, was to Gale, Ames & Blaisdale, of Lawrence, Massachusetts [69,550-Oct. 8, 1867]. This is clearly illustrated by Figs. 16 and 17. These illustrations show the patent as applied to a body of the coal box pattern.



have taken place. We will therefore continue this article in future numbers, tracing the changes as they occurred, and giving illustrations of patents from those shown on the patent papers, but omitting lettering and reference to details of construction. *Hub* October 1897 pages 437-439.

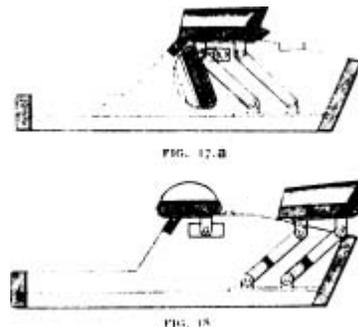
During the year 1870 seven patents were issued. The first of these was issued to Alexander Wright, of Wilmington, Delaware [101,959-April 12, 1870]. It represented no new principle, the inventor's claim being confined to minor details for securing seats.

On June 14 [104,248] a patent was granted Sylvester W. Beach, of South Bend, Indiana, for an improvement on shifting seats, Fig. 16a. In this a strap of iron is secured to the upper edge of the panel, on each side at the top. This iron was



grooved to receive

**FIG. 16a.**



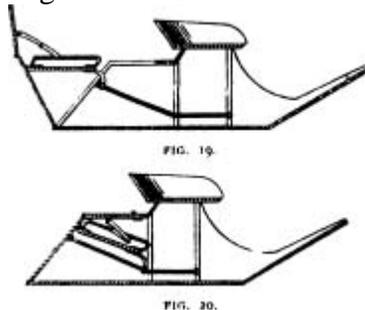
rollers, upon which the seat rested. The seat was held in place by two vertical bars with hooks at the ends, which traveled in grooves on the under side of the iron strap. The front seat rested upon pivoted arms, which permitted it being thrown backward or forward; in the latter case it provided a

patented by Henry Wahtstedt, of Princeton, Illinois [116,119-June 20, 1871].

Henry Nagle, of Carlisle, Pennsylvania [120,312-October 24, 1871], secured a patent the main feature of which was the arrangement of double sills; the interior ones

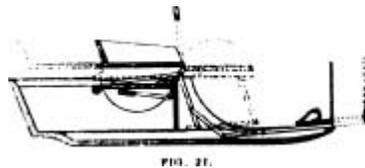
child's seat at the front. In November 8, 1870 [109,102] the same party, then a resident of Ypsilanti, Michigan, took out another patent, which more clearly defined his device and the method of clamping to hold the seat in place.

C. Haas, of Chicago, [104,583-June 6, 1870] was granted a patent for an improved buggy seat, the character of which is shown by Figs. 17a and 18. The material feature of this is the arrangement of the front seat.



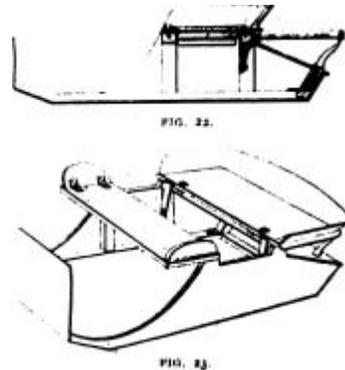
Another device was that patented by T. H. Wood, of New York City [105,758-July 26, 1870], illustrated by Figs. 19 and 20. By this the secondary seat is affixed to the body at the back. The seat deck and tail board all acted automatically, the front seat support sliding upon inclined bars. This was a very simple and compact device but it never came into general use.

Another patent was one granted to R. F. Briggs, of Amesbury, Massachusetts [109,377-Nov. 22, 1870]: the inventor rested his claims mainly upon the application of grooves for the back seat and spring to hold it in place.

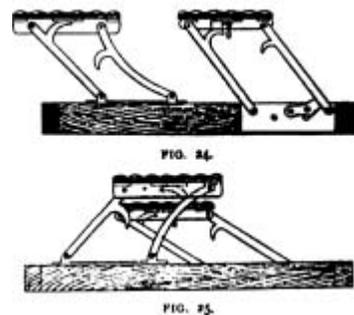


C. N. Dennett, Amesbury, Massachusetts, was granted a patent for an improvement in

furnished bases for the support of the rear seat, these sills being provided with tongues and grooves which permitted the secondary sills being slid into place when the seat was adjusted. James R. Gilman [114,000-April 25, 1871] obtained a patent for an arrangement of the seat irons which were little more if anything than the simplifying of the Beach seats and a different fastening device.



Daniel and Noah Kroninger, of Eagle Point, Pennsylvania [120,444-October 31, 1871], were granted a patent on an adjustable seat buggy, as illustrated by Figs. 22 and 23. The guide bars and supports for the seat when moved to the rear and the necessary working fixtures were the essential features.



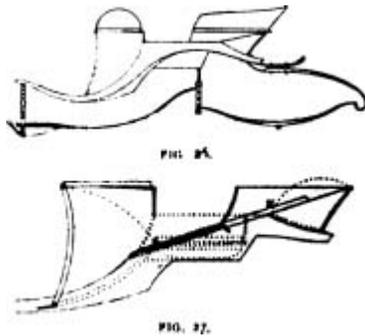
carriages, Fig. 21. This patent covered the arrangement of the seats and a sliding dash, which when the body was to be used with the two seats, would extend sufficiently far forward to provide sufficient foot room for the occupants of the front seat. In 1871 nine patents were taken out for changeable seats. Of these one was to R. E. Jones, of Goldsborough, North Carolina [113,060-March 28, 1871] the distinctive feature of which was the arrangement of the main seat so that when two seats were used this seat was jumped back and supported by an iron leg resting on the spring bar. Two were by Sylvester W. Beach, of Ypsilanti; Michigan [113,387-April 4, 1871--115,152-May 23, 1871], as improvements upon his previous patents. An adjustable secondary

seat, to be affixed to the front edge of the main seat frame, was

Nelson Warren and Thomas Underwood, of Wilmington, Delaware, [121,563-Dec. 5, 1871] were granted patents upon jump seat irons, the construction of which and their manner of working are clearly shown by Figs. 24 and 25. These were the first having solid supports upon the leg pieces.

Earl C. Newton, of Batavia, Illinois [121,295-November 28, 1871], was awarded a patent on improvement in carriages covering the adjustable seat, the coupling of the reach and spring and a shaft jack, shown by Figs. 26 and 27. The illustrations make

fairly clear the workings of the seat, but it is necessary to state that



Four patents were granted in 1873. One was to K. Mellinger, of Harrisburg, Pennsylvania, [134,692-Jan. 7, 1873] which related mainly to the arrangement of slots in the front and back of the carriage to permit the use of a jump seat when the front and back of the carriage is closed.

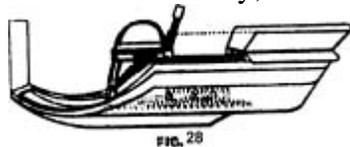
Charles H. Howell, of Middletown, New York, was granted a patent dated April 8, [137,681] the main feature of which consists is the use of an elbow arm for the back support of the seat, whereby it may be thrown back over a deep pair

On May 6 [138,537] a patent was granted to Alfred B. Sheaffer, of New Holland, Pennsylvania, for jump seat irons having legs whereby the arms could be locked and held securely to place.

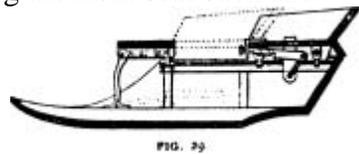


the groove K, Fig. 27, is cut into the bottom of the seat riser to allow said riser to slide down over the slide irons carrying the riser down to the level with the deck when one seat only is used.

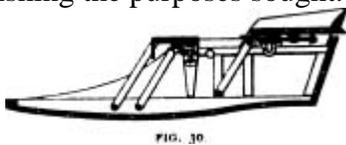
Four patents were issued in 1872, two of which were to David Aspinwall, of South Bend, Indiana [123,547-Feb. 13, 1872--134,452-Dec. 31, 1872]. The first was issued in February; this is



illustrated by Fig. 28. The full lines showing the seats are arranged for: four passengers, the dotted lines showing the front seat back and

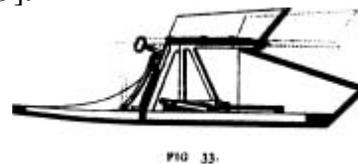


the main seat in place for a two passenger carriage. Fig. 29 illustrates the patent taken out in December. The dotted lines in the case, as in the preceding one, show the vehicle arranged for two persons. While neither of those shows any decided novelty in the way of the arrangement of the seats, they both illustrate ingenious devices for accomplishing the purposes sought.



John D. McAuliff, of St. Louis, Missouri [128,645-July 2, 1872] obtained a patent for jump seat irons jointed by stump joints, which permitted the seats being thrown forward or backward at will. Henry Timken, Ex-President of the C. B. N. A., took out a patent in August 13, 1872 [130,546] which is illustrated by Fig. 30. In this the front seat is hung upon two parallel arms,

Jacob N. Miller, of Bellefontaine, took out a patent dated July 22 [141,065] which covered folding the front seat out of the way without inverting the seat and sliding the rear seat on concealed guides. Ten patents were granted during the year 1874. The first of these was to Henry W. Quin, [146,278] of Anderson, Indiana, dated January 6. This, as will be seen by Figs. 31 and 32, is a very simple device. The only feature not clearly shown by the illustrations is the back supports of the front or extra seat. These are pivoted to the seat bottom so that when the seat is to be folded down they can be turned inward out of the way of the panels. One was issued to Alfred B. Sheaffer, of New Holland, Pa., which was but an improvement on a patent granted the year previous. A patent was issued to John A. Hanna, of Bel-Air, Maryland, which covered an improved method for securing the jump legs to the sills and seat frame. This patent bore date May 5 [150,569].

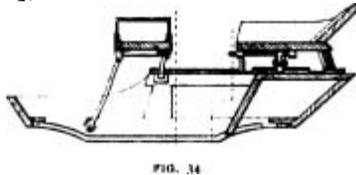


Lewis W. Blessing, of Wilmington, Delaware, was granted a patent dated May 26 [151,349], shown by Fig. 33. This covers the use of fixed standards to slides working in a trench attached to the sills of the body. On May 26 [151,405] a patent was granted to William M. Knapp, of

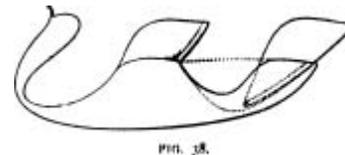
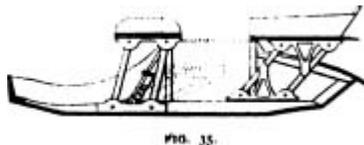
by which the seat could be thrown forward or backward at will. The rear seat was hung upon a pivoted lever the forward end of which projected through a slotted plate; an ingenious locking device served to hold the seats firmly when in position.

Muncie, Indiana. This covered a somewhat complex method operating the changes on a seat without any

decided advantage over other methods. Mr. Knapp was granted another patent on June 16 [152,124]. The feature of this was the hanging of the front seat on movable legs and the supporting of the seat when up by means of legs the feet of which rested into sockets on the top of the body when the seat was raised, and into sockets in the sill when lowered. James A. Curtis, of Greencastle, Indiana, was granted a patent dated June 30 [152,610], the full character of which



is shown by Fig. 34, the traveling trench being of iron attached to the top of the panel of the body. Sylvester W. Beach, of Ypsilanti, Michigan, was granted a patent on October 6 [155,696], which was, to the main, but an improvement upon other patents taken out by him. James C. Stock, of Wilmington, Delaware, [156,680-Nov. 10, 1874] was granted a patent on November 10 as an improvement upon a previous patent granted on December 5. Christian K. Mellinger was granted a patent on November 10 [156,709], the



which his arrangement was applied to different forms of bodies. Two additional forms are shown by Figs. 37 and 38. This patent covers ground not occupied by any other, and in this respect it is a primary patent and one that is likely to cause trouble with future patents.

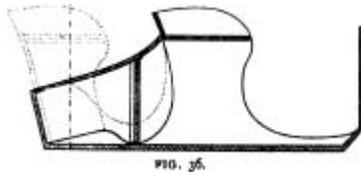
John K. Patten, of Amesbury, Massachusetts, was granted a patent on January 19 [158,864] for a new arrangement of the back legs of jump seat irons, by which they can be folded in or turned upward against the seat bottom and allow the seat to fall out of the way of the plain seat.

On January 12 [158,738] a patent was granted James V. Randall, of Newtown, Pennsylvania. In this the main seat was provided with slot irons upon each end piece of this frame, through which a bolt passed, by which the seat was held in place, in whatever position it was placed. The front seat was supported by standards, the top of which were provided with braces for making secure the front seat.

On February 12 [160,036] a patent was granted Nahum Starkey, of Amesbury,

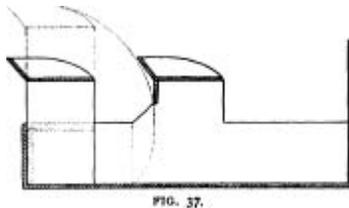
cardinal features of which are fully illustrated by Fig. 35, which shows the seats as arranged for two passengers, the extra seat being folded under. *Hub November 1897 pages 547-549.*

Nine patents were issued in 1875, some of which represented new ideas, while others were improvements upon existing patents.



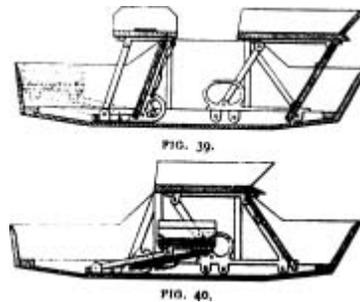
Edward W. Anderson, of Washington, D. C., was granted a patent on January 19 [158,822], for an arrangement of a back seat which when folded down forms a part of the body. Fig. 36 shows the

seat in both positions. The inventor showed various forms of seats in

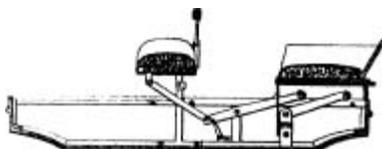


Massachusetts, for an improved jump seat. The distinctive feature was the, jointing, of the hind legs, so that they could be folded up against the, underside of the seat bottom when the seat was thrown down.

On March 9 [160,651] John P. Cost, of Bellefontaine, Ohio, was granted a patent for a somewhat complicated arrangement for the rear legs for a front seat for a convertible seat carriage, by which the front seat could be fixed in a position to fit it for an adult or for a child, the automatic action being a leading feature.



On April 20 [162,297] Christian K. Mellinger, of Harrisburg, Pennsylvania, was granted a patent for as improved jump seat. This is shown in its two positions by Figs. 39 and 40. One of the parts not shown in these drawings is the manner, of folding the ends of the front seat, to allow it to fall in place under the rear seat. All other features are sufficiently well defined in the sketches to give a clear idea of the manner of changing the seats. An additional patent was granted to Mr. Mellinger on June 29 [165,016], covering points not fully covered by previous patents.



On February 22 [173,774] Charles N. Dene was granted a patent upon a changeable seat standing top vehicle the main seat of which was controlled by hinged standards, instead

sliding in grooves and the forward parts for the support of a top were secured to the body outside of the panel so as to admit of free movement of the seats.

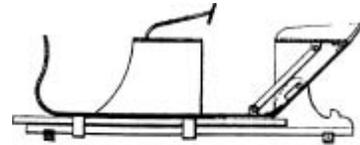


FIG. 45.

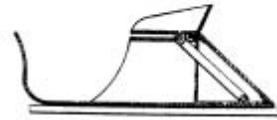


FIG. 46.

David W. Hern and Paul Richards, of Minneapolis, Minnesota, were granted a patent dated October 5 [168,490] for jump seats, as shown by Figs. 41 and 42. As will be seen, this device was automatic in action. The Carrying backward or forward of the rear, or main seat, placed the extra seat in either desired position. The various arms and their attachments appear to be simple and effective.

On October 5 [168,386] a patent was granted to David Ford, of Milwaukee, Wisconsin, for a slide seat, the main feature of which was the arranging of the front or extra seat in such a manner that it could fall back in the body and be under the main seat when that was brought to the front.



FIG. 43.

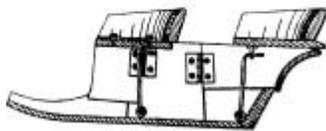


FIG. 44.

Frederick Oppenheim, of San Francisco, California, was granted a patent dated February 29 [174,148], the working of which is shown by Figs. 45 and 46. A reissue dated December 5 [R7,416] further covered the points claimed by the patentee. The primary points in this patent have suggested many important improvements in changeable seat vehicles, and the device as a whole has had a marked influence upon the construction of changeable seat vehicles, although the trade was slow to admit its value. On May 2 [176,804] a patent was granted John R. Patten, of Amesbury, Massachusetts, upon an improved jump seat in which the patentee employed jump seat irons for the front seat, previously patented by him. His design covered a body having side doors for use when the seats were arranged for four passengers.

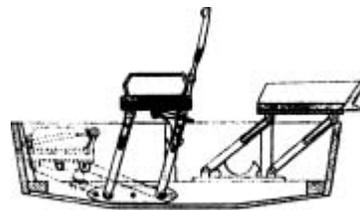
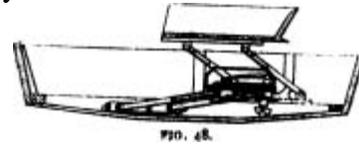


FIG. 47.

Jonathan H. Franklin, of Avoca, Wisconsin, was granted a patent on November 30 [170,543] for a changeable seat body in which hinged sections served to lengthen the body when two seats were required. Fig. 43 represents the body fitted for two passengers, and Fig. 44 shows the body elongated for two seats and four passengers.

Eleven patents, originals and reissues, were granted during the year 1876, some of which have exerted a marked influence upon the construction of changeable seat vehicles until the present time. The first was a reissue dated January 25 [R6,869], granted to Charles N. Dennett, of Salisbury, Massachusetts, the original patent having been granted November 15, 1870. The reissue more clearly defined the claims of the original.

John W. Lawrence, of Harrisburg, Pennsylvania, was granted a patent dated May 16 [177,526], the main features of which are shown in Figs. 47 and 48. The front seat is shown, by dotted lines

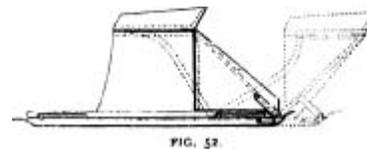


thrown forward, in Fig. 47. out of the way of passengers when entering the back, and in its proper position when the vehicle is arranged for four passengers. Fig. 48 shows it in position when fitted for two passengers only.

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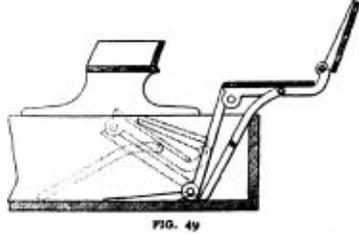
Ethan A. Jones and Henry Timken, of St. Louis, Missouri, were granted a patent dated July 4 [179,565] on which they cover a locking mechanism for a jump seat and minor points in connection with the interior arrangements.

William F. Clark, of St. Paul, Minnesota, was granted a patent dated October 10 [182,993]. This provides a single support for the front seat and a locking device to hold it in place when the vehicle is used for four passengers. When for two only the front seat is thrown back and the rear seat slid to the proper place, or the front seat may, be thrown forward and converted into a child's seat by the extra seat board being placed below, and at right angles to the front seat board.

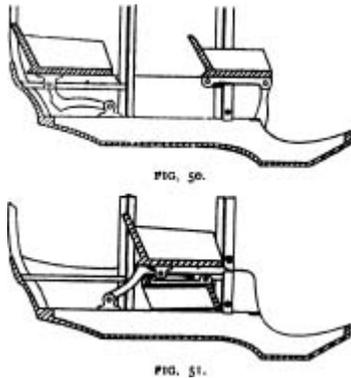


show the main seat thrown back to convert the vehicle into one suited to four passengers. *Hub December 1897 pages 638-640.*

During the year 1877, five patents were issued for turnover or slide seats, the most of which were for minor improvements. On February 13, Charles W. Patten, of Salisbury, Massachusetts, was granted a patent No. 187,304 for an improvement relating mainly to a self-supporting rest for turnover seat, by which the front seat when turned over for use was held firmly in



James Pendergast, of New Haven, Connecticut, was granted a patent dated October 31 [183,964], on a folding seat arranged at the rear end of the vehicle body as an auxiliary seat, as Shown by Fig. 49. The illustration clearly shows the arrangement of the legs When in position for use or when folded down under the main seat.



Eldridge S. Felch, of Salisbury, Massachusetts, was granted a patent on an improvement in jump seat carriages dated November 14 [184,236]. This relates especially to standing top vehicles. Figs. 50 and 51 fully illustrate its working. Both seats are sufficiently short to allow their being slid freely between the pillars. The patentees claim covered the jump seats in connection with a standing or canopy top carriage.

On November 21 [184,656], Frederick Oppenheim, of San Francisco, California, was granted a third patent on his jump seat

position.

Charles N. Dennett, of Salisbury, Massachusetts was granted a reissue on June 19, covering more clearly the patent granted on February 22. 1876.

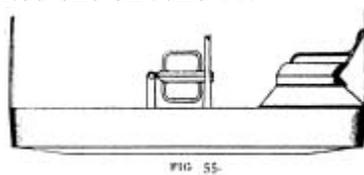
On July 31 George J. Tucker and Charles L. Tucker, of Amesbury, Massachusetts, were granted patent No. 193,677, on an improved jump seat. The improvement consisted mainly in the attachment of the seat legs.

On September 25. F. Reichle, of Detroit, Michigan, was granted patent No. 195,453. This related to a front seat that could be turned forward to admit of access to the rear seat and when not desired could be easily removed from the body.



Another patent was granted to Frederick Oppenheim, of San Francisco, California, on November 6, No. 196,821. The distinctive features covered, and the difference between this and previous patents, are clearly illustrated by Figs. 53 and 54.

Seven patents were granted during the year 1878, Charles H. Stratton, of Salem, Ohio, was granted one on June 11.



No. 204,859. This related to the adjustment

vehicle, covering a different arrangement of seats and supports, which further strengthened the original patent. Fig. 52 shows by the

full lines the body arranged for a single seat; and the dotted lines

of the seats for a box

wagon, the operation of which is shown by Figs. 55 and 56. In

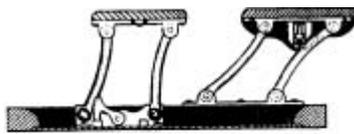


FIG. 64.

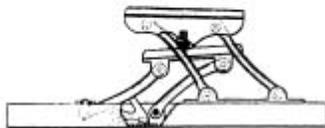


FIG. 65.

consisted in the arrangement of split seats the primary feature being the arrangement of the supporting irons to the lazy backs by which the backs could be so operated, as to be out of the way, when one-half of the seat is lifted to admit of access to the rear.

On December 28, a reissue No. 9,520 was granted Christian K. Mellinger, of Philadelphia, Pennsylvania, for additional improvements in seat irons. *Hub January 1898 page 722-723.*

Eight patents were granted in the year 1881, some of which were for improvements on previous patents, others were for minor adjustments, and a few for radical changes embodying new devices.

seat vehicles on November 11. No. 221,654. The locking of the legs and the automatic, folding of the lazy back to the front seat constituted the distinctive features of this patent.

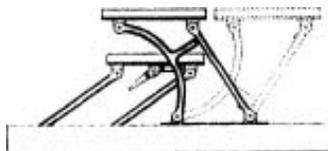


FIG. 66.

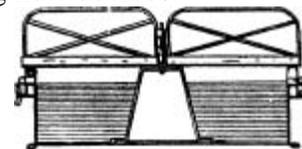


FIG. 68.

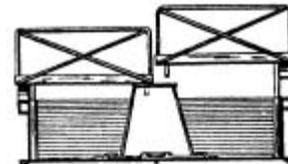
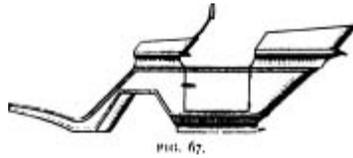


FIG. 69.

Seven patents were granted during the year 1880. On March 30, John Finnegan, of Philadelphia, Pennsylvania, was granted patent No. 226,053; for jump seats. The

operation of the legs and the arrangement of legs are shown by Fig. 66.



On May 4. T. J. Wright, of Dunbarton, Ohio, was granted patent No. 227,340, for a carriage. Fig. 67, which shows it arranged for four passengers, when converted into a two passenger vehicle, the front or extra seat, which is made in two parts and secured in the middle, is released, so as to allow the two sections which are hinged to the body inside are folded down so as to rest on to or near the bottom, and the rear seat is slid forward to its proper place. And the deck is covered by a panel which when not in use is carried under the bottom of the body.

On May 18 a patent No. 227,612 was granted to John A. Chapman, of White Water, Wisconsin, for shifting seats, which embodied the general principles of the old style slide seat, except that jump irons instead of slide irons were used.

Christian K. Mellinger and John W. Anderson, of Lancaster, Pennsylvania, were granted a patent on August 24, No. 231,438, for jump seats for vehicles which were improvements upon previous patents granted the same parties.

Frederick Oppenheim, of San Francisco, California, was granted a reissue No. 9,464, on November 16, covering more in detail previous patents.

William S. Durie, of St. Louis, Missouri, was granted a

patent on carriage seats, No. 236,008, dated December 28. This

A patent was granted to Andrew Gundelfinger, of Jefferson City, Mo., dated May 17th, No. 241,537, for a vehicle seat, illustrated by Figs. 68 and 69. The feature of this patent is the hanging of the two sections of the seats on central pivotal points, so that either section can be turned around to admit of easy access to the body from the rear.

On May 17 a patent, No. 241,618, was granted to Samuel M. Chester, of Cincinnati, Ohio. This patent covered certain features of the top and lazy back in addition to a hinged adjustable front seat, in combination with an adjustable back, but so far as the seats are concerned there is nothing in the way of a novelty or a special character.

Charles H. Stratton, of Salem, Ohio, was granted a patent dated May 31, No. 242,166, which was an improvement upon devices previously patented.

G. H. Hutton, of Baltimore, Maryland, was granted a patent on June 28, No. 243,565, containing some new features and covering jump seat irons previously patented by him.

On September 13 a patent was granted to Theodore Kreseen, of Young America, Ind. The feature of this improvement consists in placing a seat immediately over the door, which is placed in the rear end of, the body, pivoting one end of the seat to the body and connecting the seat to the door, so that when the door is thrown open the seat is turned around and out of the way, so as to admit access to the body from the rear.

John W. Anderson, of Lancaster, Pennsylvania, was granted a patent dated October 4, No. 247,871, for jump seat irons, the feature of which was the arrangement of shifting supports for either end of the seat.

Another patent was granted John W. Anderson, of Lancaster, Pennsylvania, dated October 11, No. 248,005, covering locking and other devices for jump seat iron, an adjustable lazy back for the front seat being one of the prominent features.

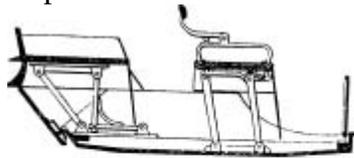


FIG. 70.

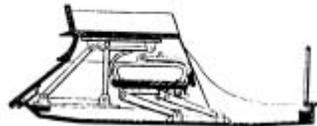


FIG. 71.

Theophilus Weaver, of Harrisburg, Pennsylvania, was granted a patent dated October 25, No. 248,818; illustrated by Figs. 70 and 71. As will be seen, the arrangement of the rear seat called for a shifting rear panel by which, when two seats were desired the body could be lengthened and yet present the appearance of a solid side and back end, and when but one seat was called for the front seat could be folded down and the rear seat, together with the rear shifting section of the body, brought forward and the body given the appearance of a close "coal box."

During the year 1882 twelve patents were granted, the number exceeding that of any previous year, but with a few exceptions the new patents embodied very little that was specially new or meritorious, while those that were granted upon previous patented devices served only to strengthen or to explain some peculiar feature that had been overlooked in the original.

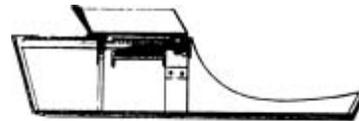


FIG. 73.

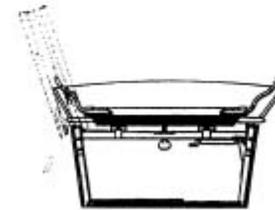


FIG. 74.

Jackson W. Hewett, of Jackson, Michigan, was granted a patent, dated April 18, No. 256,683, illustrated by Figs. 73 and 74. This device provided for the folding back of the front seat and the sending forward of the rear seat when changing from a four to a two passenger vehicle, and the hinging of the front seat, so that it can be raised to admit of access to the rear seat.

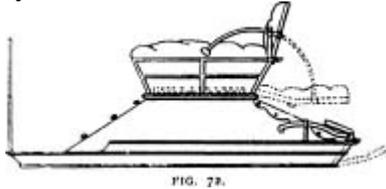


FIG. 75.

Pierre A. Lariviere, of Ottawa, Ont., Canada, was granted a United States patent, dated June 6, No. 259,177, for a carriage seat, illustrated by Figs. 75 and 76. This consisted of an arrangement



The first patent granted in that year was to a citizen of far off Australia, William T. Angus, of Sydney, dated January 17, No. 252,411. The invention consists in the combination, with the seat and its hinged back, curved sliding rods and brackets, whereby the



hinged back will be supported when turned down into a horizontal position, together with other necessary mechanical appliances. Fig. 72 illustrates this patent.

John C. Theakston, of Salem, Ohio, was granted a patent dated Feb. 7, No. 253,238. The feature of this was the automatic connection whereby both seats could be placed in the desired position, by moving of one seat, accomplishing what had been done by previous patented devices, but by a different arrangement of arms.

whereby one-half of the seat, with fixed lazy back, can be slid back so as to permit of its being thrown up to admit of access, to the rear seat.

Ernest C. Hilderbrand, of New Haven, Connecticut, was granted a patent dated August 8, No. 262,411, covering an arrangement whereby the front seat could be thrown forward on

pinions attached to the front edge, of the seat frame, when the seat is

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thrown over on these pinions. The rear seat, supported by iron legs, is thrown forward to its proper place, and the front seat is raised and made to rest upon the bottom of the main seat, thus converting the body into one for two passengers. Portable; doors constitute another feature. George H. Hutton, of Baltimore, Maryland, was granted another patent on seat irons, dated Sept.5, No. 263,910, the general principle involved not differing from that covered by previous patents: William B. Sales, of Fort

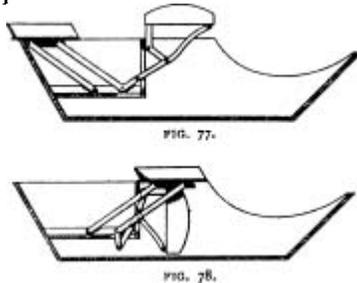
John Moore, of Amherst, Nova Scotia, Canada, was granted a United States patent dated Dec, 5, No. 268,519, illustrated by Figs. 79 and 80. As will be seen, this invention relates to the one seat falling into the other, the rear seat sliding on the upper edges of the side boards.

Ten patents were granted in 1883, some of which were virtually reissues, others bare evidence of attempts to overcome previous

Atkinson, Wisconsin,

was granted a patent dated Sept. 12, No. 264,106. This was a narrow patent and the device was one of minor importance.

Theophilus Weaver, of Harrisburg, Pennsylvania, was granted a reissue of his original patent, dated Sept. 12, No. 10,195. This more clearly defined claims on the original patent.



Johiel Jackson, of Fort Atkinson, Wis., was granted a patent dated Oct. 10, No. 265,606, for an automatic adjustment of seat irons, illustrated by Figs. 77 and 78. A very simple device, which is clearly shown in the two positions. Another device, a little more intricate in character, was also included in this patent.

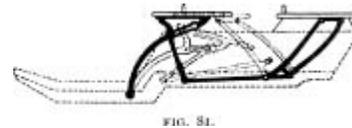
Ernest C. Hilderbrand, of New Haven, Conn., was granted a patent, dated Nov. 7, No. 267,080, mainly embodying the principles covered by a previous patent, but applied to a different kind of body, which necessitated new combinations.

George H. Hutton, of Baltimore, Maryland, was granted another patent on shifting seat irons, dated November 21, No. 267,893, embodying many of the principles of previous patents, combined with new features.

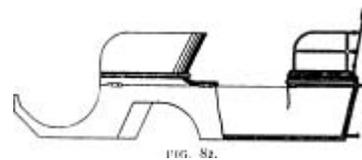
original patents, while others possessed little merit.

A patent was granted to Christian Haas, of Chicago, Illinois, dated Feb. 13, No. 272,381. The device embodied no new features of special merit other than in minor parts.

Richard Fawcett, of Salem, Ohio, obtained a patent dated Feb. 20, No. 272,420. It related to an arrangement for folding the front seat down in the bottom when not required for use, and some appliances for locking this and the main seat in their respective positions.



Osgood Morrill, of Salisbury, Massachusetts, was granted a patent dated March 27, No. 274,633, illustrated by Fig. 81, which shows the working irons by solid outlines, when the body is fitted for four passengers and by dotted lines when arranged for two. As will be seen this is a simple automatic arrangement for shifting the seats by a single motion. Another patent was granted Mr. Morrill, dated May 29, No. 278,583, embodying the same features as his previous patent, but operating on different lines.



Johann S. G. F. Horcher, of Altona, Prussia, Germany, was granted a United States patent, dated July 31, illustrated by Figs. 82

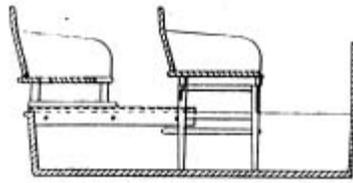


FIG. 79.

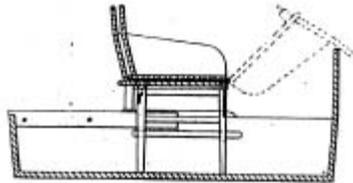


FIG. 80.

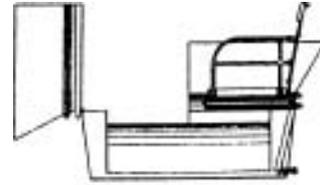


FIG. 83.

and **83**. This has for its object facilitating access to the rear seat from the front by a split front seat, and an arrangement of the rear seat, so that it can be folded down into the body when not desired for use, thus covering the entire rear portion of a body, and the swinging of the rear seat on a pivot, so as to admit of access to the body, by a door in the rear end.

Cornelius Bauer, of Cincinnati, Ohio, was granted a patent dated August 21, No. 283,370. It covered an ingenious arrangement of jump seat irons, but embodied no new principle.

Horace A. Willets, of Philadelphia, Pennsylvania, was granted a patent for jump seat irons, dated August 28, No. 284,153, the feature of which was the locking device.

Harlan P. Wells, of Salisbury, Massachusetts, was granted a patent dated Sept. 25. No. 285,450, covering another arrangement of seat irons, the general features of which are much like many others in the market.

Francis Thomas, of Cincinnati, Ohio, was granted a patent for seat irons, dated Dec. 18, No. 290,283. The main object attained was the arrangement of irons, whereby in addition to the results obtained by others the two seats may be supported at the same height, or at different height, at will.

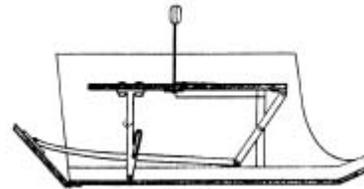
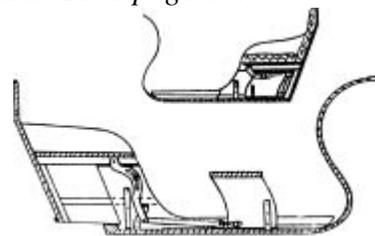


FIG. 85.

passengers, as illustrated by Figs. **85** and **86**.  
*Hub March 1898 page 873.*

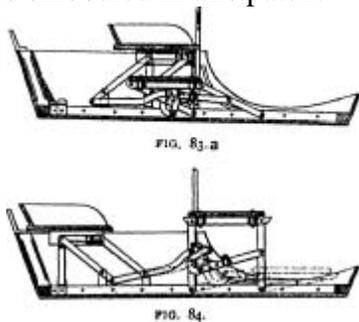


FIGS. 87 AND 88.

*Hub February 1898 pages 789-791.*

Nine patents were issued during the year 1884, some of which were improvements upon patents previously taken out; others were of comparatively little value, and a few embodied new principles. The first taken out that year was by Dudley B. Gale, of Salisbury, Massachusetts, dated April 8, No. 264,400. In this the patentee made improvements on a patent taken out by him on June 18, 1878.

C. H. Stratton, of Salem, Ohio, was granted a patent, dated May 27, No. 299,437. The principle embodied in this patent was the

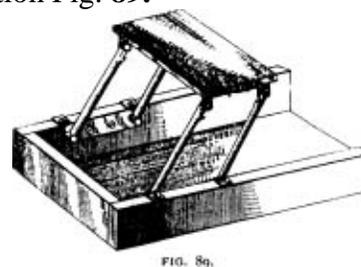


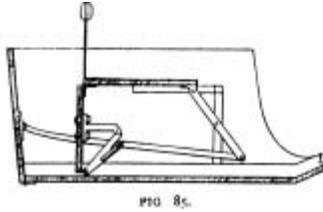
operation of the two seats, either forward or backward, by a single movement. This is illustrated by Figs. **83** and **84**.

Phaon J. Kern, of Frankfort, Indiana, was granted a patent, dated June 17, No. 300,611. This covered an arrangement whereby the seat could be swung to one side, and by the same movement the tailgate of the body could be opened; a return of the seat to its proper place would close the gate.

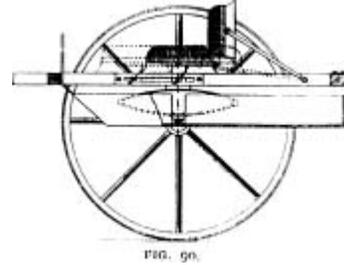
Frank R. Alderman, of Detroit, Michigan, was granted a patent, dated July 22, No. 302,371, for improvements suited to a "sleigh or buggy," by which the seats worked automatically. This patent, as applied to a sleigh, is shown by Figs. **87** and **88**.

Joinville F. Fowler, of Alliance, Ohio, was granted a patent, dated Aug. 19, No. 303,718, for an improved construction and combination of parts of a seat, which may be adjusted to fold to either side and to be supported when swung forward or backward. The arrangement is shown by illustration Fig. **89**.



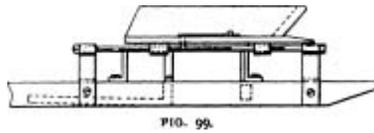


George H. Hutton, of Baltimore, Maryland, was granted a patent, dated Sept. 9, No. 305,005, for further improvements on jump seats, previously illustrated.

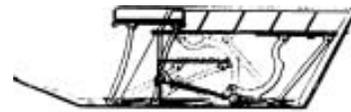
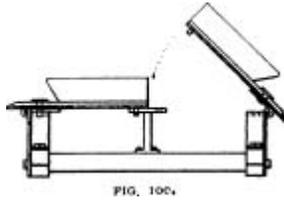


Joseph T. Clarkson, of Amesbury, Massachusetts, was granted a patent, dated June 24, No. 300,847, covering that of an automatic connection whereby the opening or closing of the tail-

board would adjust the seats to fit it for two passengers or four



applied to a two wheel vehicle, contains features that entitle it to notice herewith. The object attained is an adjustable seat by which the proper balance may be secured, and a divided seat in connection



Charles C. Adelsperger, of Arcanum, Ohio, was granted a patent dated May 4, No. 340,970, for shifting seat carriages, illustrated by Fig. 103. This relates to improvements, the objects of which are to afford facilities for converting a two seated into a one-seated and vice versa, also to provide a means of adjusting the front seat independently of the rear.

George H. Hutton was granted a patent, dated June 1, No. 342,964, further protecting improvements in these jump seat irons.

**FIG. 103.**



therewith, to admit of entering from the rear

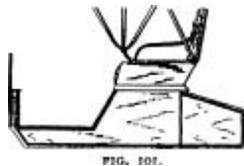
**FIG. 104**

and this is illustrated by Figs. **99** and **100**.

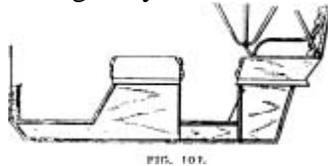
Eleven patents were granted during the year 1886 mainly for new devices or methods. Three of which were to residents of foreign countries.

Andrew F. Shuler, of Arcanum, Ohio, was granted a patent dated Jan 26, No. 334,905. This invention covers an improvement in jump seat irons, which act automatically, closing or opening the seats by one movement.

W. D. Smith, of Brooklyn, New York, was granted a patent dated Jan. 26, No. 334,908, for an improvement illustrated by Figs. **101** and **102**. The main feature of this body is as stated in the claim:



"In a vehicle, the seat supporting formed in two sections of which one is stationary and the other hinged by its lower rear corner, the

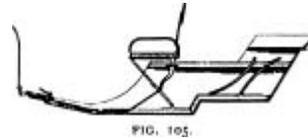


seat hinged to the movable section and adopted to be supported alternately upon the movable section."

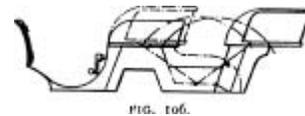
William H. Steinbreeher, of Detroit, Michigan, was granted a patent dated Feb. 9, 1886, No. 335,649. This related to a device whereby the Portland sleigh could be converted to a four passenger sleigh.

George H. Hutton, Jr., and Millard B. Hutton, of Baltimore, Maryland, were granted a patent dated April 27, No. 340,948, for jump-seat irons, having an

T. G. Mandt, of Stoughton, Wisconsin, was granted a patent on jump seat vehicles, Aug. 3, No. 346,760. illustrated by Figs. **104** and **105**. This represents a new method of disposing of the



front seat by direct folding under to the bottom, so that it will be out of the way when the rear seat is brought forward.



Hippolyte Laine Plisson, of Aresnelles, France, was granted a patent dated Aug. 24. No. 348,053. This device is based upon the Oppenheim patent, illustrated by Fig. **106**. "The object of this invention is to provide means whereby any desired form may be given to the standards or boxing or framing for the rear seat, so that when folded onto the front seat the said boxing will present either a perfectly vertical face or a curvilinear or convex or other desired surface, thus giving the vehicle a lighter and more graceful appearance. This I accomplish by arranging the supports for the tilting seat so that the latter will lie between them instead of resting on them, or, in other words, by hanging the tilting seat between its supports.

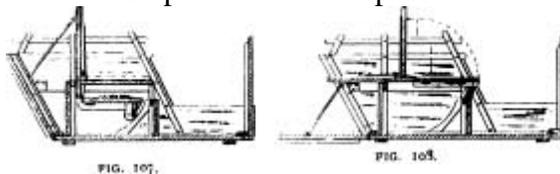
"To these ends the invention consists in suspending the tilting seat of a vehicle from and between its supports.

automatic attachment whereby the seats can be adjusted by a single movement.

"The manner of suspending the tilting seat between its side supporting-bars may be varied without departing from the nature of my invention."

George Eugene Bartholomew of Brooklyn, New York, was granted a patent dated Sept. 14, No. 349,135. This invention relates to the construction of that class of vehicles wherein it is desirable that the back seat should be free to swing outward in order

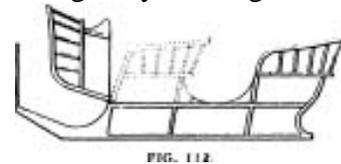
to form an opening through the box through which the passengers may enter or leave the vehicle, and a peculiar and novel construction, whereby the seat is firmly held and prevented from sagging when in its open or extended position.



James Steele, of Guelph, Ontario, Canada, was granted a patent dated Nov. 2, No. 351,943, illustrated by Figs. **107** and **108**, for an improvement in vehicle seats, the invention consists in a vehicle-body provided with a hinged back and a tilting seat connected with the hinged back by rods jointed to the seat and to the back of the body, and an auxiliary seat hinged to an extension of the back of the main seat and provided with rollers made to ride upon guides arranged in the vehicle-body below the main seat. The primary clause

This invention relates to shifting seats for vehicles, and particularly to the type known as "jump-seats," in which two seats are so connected by levers and links at their sides that their relative positions may be altered to permit either one or both to be used, as may be desired.

The object of the present invention is to so construct and arrange two seats in a vehicle that the rear seat may be automatically secured as a rear seat when two seats are used, or advanced to the center of the vehicle and have the front seat fold under it, of in an opposite direction, the rear seat being locked in either position until changed by a lifting motion.



George E. Spare, of New Haven, Connecticut, was granted a patent, dated June 29, No. 365,648, illustrated by Fig. **112**.

This invention relates to an improvement in that class of two seated wagons commonly called "Surrey wagons," and in which the sides of the body extend up so high as to meet

being "the combination, with a pivoted seat-back and seat rigidly secured thereto, of an end-board hinged to the vehicle-body and rods connecting the seat-back and the hinged end

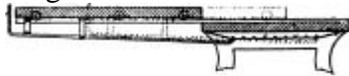


FIG. 109.

board to cause them to move together."

Michael Guet, of Paris, France, was granted a patent on an adjustable seat for vehicles, dated Dec. 21, No. 354,860, illustrated by Fig. 109.

"This invention more particularly relates to the seats of two-wheeled carts or vehicles—that is to say, to that class of two-wheeled vehicles which are provided with a front seat and a rear seat, the one of which has a fixed position and the other of which is adjustable relatively to or from and over the fixed seat, for the purpose of balancing the vehicle or regulating the position of the load according to circumstances, or is only one or both seats are in requisition."

Four patents were granted in 1887, one of which to further protect a previously granted patent.

Charles H. Stratton, of Salem, Ohio, was granted a patent for jump-seat for vehicles, dated March 1, No. 358,794, illustrated by Figs. 110 and 111.



FIG. 111.

the seat-bottom, the sides of the body between the front and rear seat being cut away for the convenience of entering or leaving the carriage: to or from the back seat: the sides of the body forward of the front seat cut away so as to leave a clear opening between the front seat and dash. The back of the front seat necessarily contracts the space forward of the rear seat; but yet the body leaves sufficient room for the feet and legs of the occupants of the back seat. In entering or leaving the carriage, however, the back of the front seat interferes, and to obviate this difficulty the front seat has been hinged to the body at its front edge, so as to be turned forward to clear the passage into or from the back seat.

Charles C. Adelsperger, of Springfield, Ohio, was granted a patent dated Aug. 9, No. 367,884, covering additional features of the patent granted May 4, 1886.

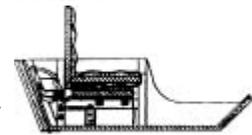


FIG. 113.

S. & G. Penfold, of Guelph, Ontario, Canada, was granted a



FIG. 110.

patent dated Oct. 18, No. 371,622, for folding seat; illustrated by Figs. 113 and 114.

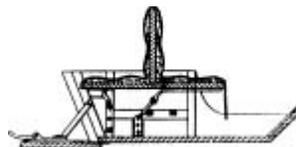


FIG. 114.

This invention relates to the construction of a novel form of folding vehicle seat, the object of the inven

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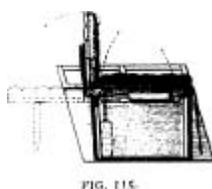
tion being to so construct and mount a seat that it may be used in connection with its vehicle-body either as a single or a double seat, and so that the body will appear in proportion whether

the seat be used as a single or as a double seat.  
*Hub May 1898 pages 103-105.*

During the year 1888 nine patents were granted, one of which was to a German manufacturer at Hamburg, Germany.

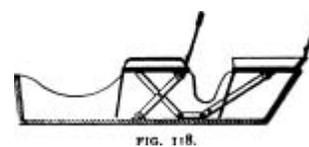
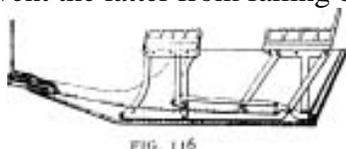
Several were for improvements upon prior patents, and one, at least,

was a marked departure from prior devices, and it has excited a decided influence upon the construction of traps.  
C. M. Blydenburgh, of Riverhead, New York, obtained a patent upon a vehicle seat, dated March 27, No. 380,170, illustrated by Fig. 115. This invention relates especially to that class of vehicles employing front and rear seats. The object of which is to construct a vehicle that can be easily and quickly converted into a single or double seat vehicle, and when a single seat is used it will show no traces of its second seat, and so construct the body and rear seat that the latter may not only be dispensed with as a seat, but may also serve as a back for the front seat, in which latter position, as before stated, its lazyback will serve as the support for the seat and prevent the latter from falling backward.



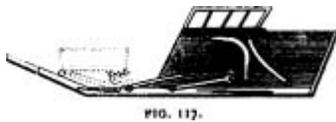
and a front and rear seat fixed in position in all parts; of a canopy top supported by pillars rising from the front and rear seats, the combination, with bottom ends and back of arm-rail, having standards, with offsets, standard, and forked arm pivoted to the standard, rigidly secured to the back and formed to rest upon offsets, all parts being so constructed and arranged that when the arm rests upon either of said offsets the back will be thereby supported at the proper angle to bottom.

Frank Rightmyer, of Springfield, Ohio, was granted a patent on shifting seat for vehicles dated Sept. 18, No. 389,597. The object of this invention is to provide a locking mechanism of novel construction adapted to be disengaged by the seat-arms or independent thereof as desired, to provide a novel means for adjusting the seat supporting mechanism to accommodate itself to vehicle bodies of different heights, and to provide a mechanism of novel construction which will permit a forward movement of the front seat while said seat is occupied.



Charles H. Stratton of Salem Ohio was

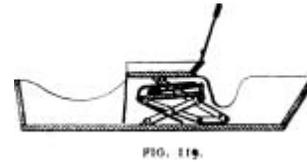
granted a patent on a jump-seat vehicle, dated June 26, No. 385,329, illustrated by Fig. 116. While this patent does not cover any new principle, it covers an ingenious method, for producing the desired results, as will be seen by the illustrations. The radical departure from prior patents is the method adopted for lengthening out the front and carrying the dash forward.



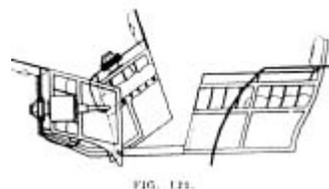
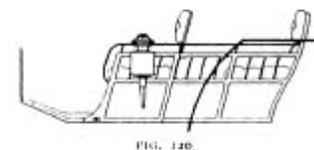
Charles C. Adelsperger, of Springfield, Ohio, was granted a patent on a shifting, seat dated July 10, No. 385,831, illustrated by Fig. 117. The objects of this invention are, first, to provide means which will permit a limited movement of the front seat backward or forward when turned into position for use, which movement is independent of the folding motion of said seat by which the vehicle is converted from one to two seated, or vice versa, to provide a novel means for locking the seat in a position for use, which means shall also permit of a backward or forward movement of said seat, to provide for adjusting the stroke or movement of the rear seat when moved from one position to the other, so that the seat may be supported at all times upon the supporting mechanism, and thus held from resting on the body of the vehicle, to provide an adjustable support of novel construction on which the supporting-iron of the rear seat is adapted to rest.

Joseph T. Clarkson, of Amesbury, Massachusetts, was granted a patent for a carriage dated July 31, No. 386,963. This related to a three-seat carriage, the combination of a middle seat having a bottom and ends fixed in place and a reversible back, and a front and rear seat fixed in place in all parts, the combination, with

Emory H. Bates, of Washington, D. C., was granted a patent on a shifting seat for vehicles, dated Aug. 28, No. 388,391, illustrated by Figs. 118 and 119. The objects are to connect both seats of a vehicle together in such a manner that when only the front



seat is required for use the rear seat can be easily and quickly moved forward to take its place, in which adjustment the said front seat will be depressed and the rear seat caused to assume the place of the front seat over the depressed seat. Then when two seats, both front and back, are required for use the main seat is moved back to assume position as rear seat, and simultaneously with such movement the seat extra, which was depressed, will rise and afford a front seat, thus giving two seats.



a middle seat having a fixed bottom and ends and a reversible back,

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Chauncey Thomas, of Boston, Massachusetts, was granted a patent for a carriage, dated Dec. 4, No. 393,937, illustrated by Figs. 120 and 121. Probably no one patent caused so complete a revolution in the construction of adjustable seat vehicles as this, not only on the lines laid down by the inventor, but in the effect upon inventors who aimed to accomplish equally good results. The inventor's claim covers a carriage-body, cut down in front of the forward seat, and having the portion of its sides adjacent to the front seat formed separate from the rear portion, pivoted to the side sills, and secured to the front seat to constitute the ends and support thereof. A two-seated carriage, the rear seat fixed directly to the rear portion of the body, the front portion of the cut-down sides formed separate from the rear portion and pivoted at their front part to the side sills of the body, the said hinged sections being permanently secured to the front seat to serve as the ends thereof. A two-seat carriage, the rear seat permanently secured to the rear portion of the body, the cut-down sides of the body formed with the front portion separate from the rear portion and hinged to the body sills, and a transversely divided front seat having its respective outer ends permanently

Fifteen patents were granted during the year 1889, the majority of which were of little real value except where they were additional protection to prior patents.

Charles M. Blydenburgh, of Riverhead, New York, was granted a patent, dated Jan. 8, No. 395,870. This embodied new features added to prior patents.

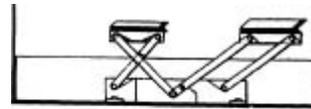


FIG. 124.

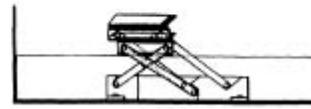


FIG. 125.

Emory H. Bates, of Washington, D. C., was granted a patent dated Jan. 15, No. 396,062, illustrated by Figs. 124 and 125. This invention relates to improvements in shifting seats for vehicles; and it consists in the novel construction and combination and arrangement of the same. It will be seen that when a front seat only is desired the person simply shifts the rear seat forward, thus causing the rear bars to turn on their pivots, thereby drawing the bar downwardly and rearwardly, causing said bar and the additional bar to act on their pivots, and thus causing the front seat to drop, after which the

secured to said hinged sections of the body, and at the inner ends hinged to the floor. The combination of body having a cut-down front, the rear seat formed integrally with the body, the transversely divided front seat, structurally connected with the sides of the body and at the inner ends pivoted to the floor, and the movable sections of the body sides pivoted at their front edge to sills, whereby either or both said halves of the front seat and the body side sections may be turned forward to open a passage to the rear seat. A two seat carriage having a fixed rear seat, the cut-down sides of the body formed with movable front sections secured to and constituting the ends of the front seat, said sections terminating in a pillar, extended down the outside of the side, sills, and thereto pivoted by a bolt.

Charles M. Blydenburgh, of Riverhead, New York, was granted a patent on a vehicle, dated Dec. 11, No. 394,329. The main features of this patent are covered by previous issues.

Otto Glesmann, of Hamburg, Germany, was granted a patent dated Dec. 11, No. 394,263, illustrated by Figs. **122** and **123**, the aim is the production of a carriage, of a movable rear wall in three parts separately hinged to the floor, sliding bars hinged to the outer parts of the said wall, respectively, and a rear seat supported on said bars.

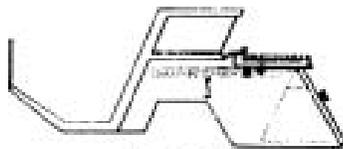


FIG. 122.

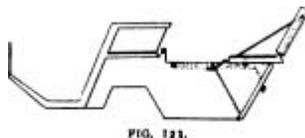


FIG. 123.

hind seat takes its place, the front seat being beneath said rear seat.

F. Rightmyer, of Springfield, Ohio, was granted a patent in shifting seat for vehicles, dated June 11, No. 405,224. This consisted mainly in the production of a locking device for lazy backs. *Hub June 1898 pages 178-179.*



FIG. 126.



FIG. 127.

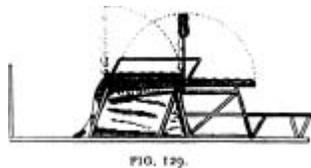
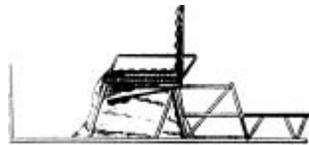
Joseph F. Goodrich, of New Haven, Connecticut, was granted a patent on vehicle seat, dated Feb. 12, No. 397,590, illustrated by Figs. **126** and **127**. This invention relates to an improvement in seats for jump-seat carriages, the object being to provide for the conversion of a two seated jump-seat carriage into a dos-a-dos, in which the occupants of the vehicle are seated back to

back; a jump-seat having a movable back in combination with means for supporting such back in a horizontal position, and in certain details of construction. To convert the vehicle from an ordinary two-seated vehicle into a one-seated carriage, the cushion

of the front seat is removed, folded up and placed under such seat,

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and the lazy-back folded over out of the way. The handle pivoted to the back seat is then grasped, and such seat pulled or jumped forward upon the front seat, which then supports it, the pivotal frames and the staying-levers being turned over, but having then no function except that of holding the seat from displacement upon the supporting front seat.

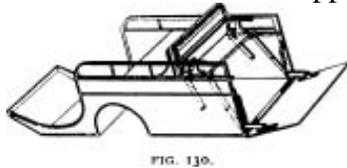


H. P. Wells and J. Spofford, Jr., of Amesbury, Massachusetts, were granted a patent dated Oct. 22, No. 413,587, the feature of which is the hinging of an extra seat in such a manner that when not in use it can be folded back under the seat fall of the main seat.

Charles M. Blydenburgh, of Riverhead, New York, was granted a patent upon a vehicle, dated Nov. 5, No. 414,485; this invention relates to certain new and useful improvements in vehicles, and especially in that class employing front and rear seats; and consists, essentially, in two independent rear seats secured side by side and having standards pivotally secured to the floor or bottom of the vehicle, whereby one or both of said seats may be turned from one position to a position at right angles thereto. Charles M. Blydenburgh, of Riverhead, New York, was granted a patent on a

Francis G. Davis, of Watertown, New York, was granted a patent dated Aug. 13, No. 409,141 illustrated by Figs. **128** and **129**. The objects of this invention are to improve the construction of this class of vehicles in the matter of folding the seats, so as to effectually conceal from view when the vehicle is in one position certain features used when the vehicle is in other positions, to reduce to

the minimum the number of parts necessary to perform such operation, and to thereby simplify and at the same time render more efficient the construction of the apparatus.



H. P. Wells and J. Spofford, Jr., of Amesbury, Massachusetts, were granted a patent on a vehicle seat, dated Sept. 17, No. 411,080, illustrated by Fig. **130**. This invention pertains to improvements in vehicles of that class having four wheels and two seats, and intended for jaunting

and family purposes, and the object of the improvements is to substitute for the rear seat at present used therein a seat that will possess the same qualifications, and, further, may be automatically reversed in such a manner as will permit its occupants to sit facing to the front or rear end of said vehicle, as necessity or fancy may require or dictate.

Charles M. Blydenburgh, of Riverhead, New York, was granted a patent on a vehicle body, dated Oct. 15, No. 413,017, illustrated by Figs. **131** and **132**; this invention relates especially to that class of vehicles employing front and rear seats. The object is to construct a vehicle that can be easily and quickly converted into a single or double set vehicle, and when a single seat is used the

vehicle, dated Nov. 19, No. 415,606. This invention relates to certain new and useful improvements in vehicles, and especially in that class employing front and rear seats: and consists, essentially, in connecting the rear seat portions to a base pivoted to the bottom or floor of the vehicle, so that the rear seats may be turned from a position transverse of the body of the vehicle to a position longitudinal thereof or parallel with the sides of said body.

George W. Kerr, of New Haven, Connecticut, was granted a patent on vehicle seat dated Nov. 26, No. 415,971. The object of this invention is to provide a seat arrangement so constructed that the carriage to which it is applied may be quickly and easily arranged either as a single carriage for the seating of two persons, as a vehicle of the kind known as "dos-a-dos," in which the persons of the back seat face the rear of the vehicle, or as an ordinary two-seated carriage with both seats facing the front.

Rufus M. Stivers, of New York, New York, was granted a patent on a carriage seat, dated Dec. 10, No. 416,872, illustrated by Figs. **133** and **134**. This invention relates to improvements in carriages of that class used for both pleasure and business, and sometimes known as "surries" or "box-buggies," the object being to provide the carriage with an additional seat when desired, without detracting from its appearance as a single-seat vehicle when but one seat is required. To accomplish this result, the panel which forms a part of the seat-back is attached at its lower side to the seat by hinges, and when in place forming a part of the back is secured in position by a suitable bolt or catch at top; but when an additional seat is

rear seat is out of sight, its bottom forming the rear wall or end-gate of the vehicle.

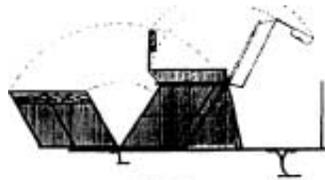


FIG. 131.



FIG. 132.



FIG. 133.

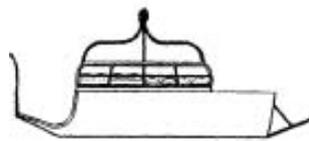


FIG. 134.

required this catch is released and the panel turned back, resting upon the top; of the body, its cushioned side uppermost, thus forming a seat facing to the rear, the frame of the panel forming the back-support for both seats. In order to form a foot-rest for the persons occupying the back seat, the rear end of the box or body, which is hinged at the bottom, is allowed to fall outward, and is supported at the proper angle by suitable stays. When not required for use as an additional seat, the back panel is turned up into its place in the back frame, and the rear

may then serve as the forward or second seat, the principal seat becoming the back seat.

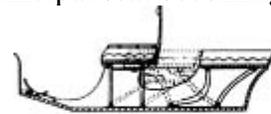


FIG. 137.

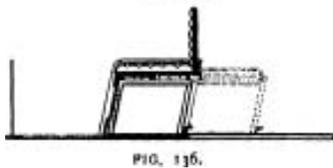
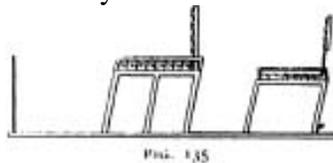


FIG. 138.

Morris Woodhull, of Dayton, Ohio, was granted a patent on a jump seat, dated April 22, No. 426,158, illustrated by Figs. 137 and 138. This invention relates especially to that class of carriages in which shifting seats are used, so that the carriage may be used either as a one or two seated vehicle. The object is to provide means for automatically folding the seat-arms to permit the same to pass within the body of the vehicle when the seat is folded in changing from a double to a single seated vehicle. A further object is to provide a shifting toe-piece or foot-rail to be used in connection with the shifting seats to bring the said toe-piece in a convenient position for use whether the vehicle is used for one or two seats.

end of the box-body is also turned up thus removing all appearance of the additional seat. *Hub July 1898 pages 258-259.*

Twelve patents were granted during the year 1890, some of these were for improvements on older devices and in none was there anything radically new.



George E. Spare, of New Haven, Connecticut, was granted a patent for a buckboard, dated March 4, No. 422,649, illustrated by Figs. **135** and **136**. This invention relates to an improvement in the construction of that class of wagons in which the body consists of an elastic board supported fore and aft, the seat or seats being between the supports, and whereby the elasticity of the board or body is utilized as the carriage springs, commonly called "buckboards," and particularly to those wagons of this class which are convertible from a single seat to two or more seats. Under the more general construction of this class of wagons the main or single seat is supported upon the body in such a manner that it may be thrown

rearward, a seat being provided beneath the principal seat, which

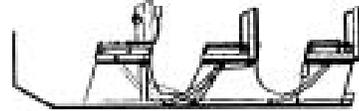


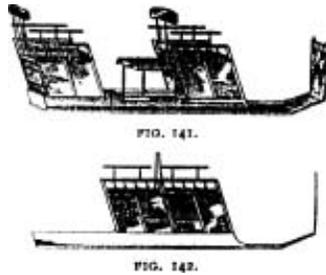
FIG. 139.

Joseph F. Goodrich, of New Haven, Connecticut, was granted a patent dated May 13, No. 427,856 illustrated by Fig. **139**. This invention relates to an improvement in jump seat carriages, the object being to make them more convenient and to give them a wider range of conversion than as now made. With these ends in view the invention consists in a seat adapted to have a jump seat jumped onto it without removing its cushion, in a jump seat having a hinged back and a lazy back.



FIG. 140.

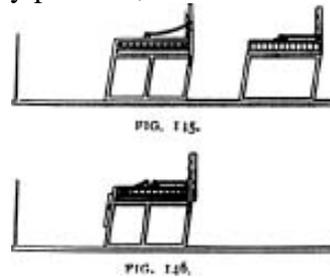
Charles M. Blydenburgb, of Riverhead, New York, was granted a patent dated May 20, No. 428,062, illustrated by Fig. **140**. This invention relates to certain improvements in vehicles, and especially in the seats and seat supports therefor. The arrangement of seats may, be such as to adapt them to a three seat vehicles, in which case the front seat-support will be a fixed one and will have its support stationary and preferably made as much after the design of the adjustable rear seats as possible to enhance the general appearance of the vehicle, or the front seat may be used with a single rear seat, which, when constructed with a pivoted support, permits this rear seat to be moved about its center of motion to shift the position of the seat portion proper with relation to the fixed front seat.



George T. Newhall, of New Haven, Connecticut, was granted a patent on a vehicle bearing date May 27, No. 428,815, illustrated by Figs. 141 and 142. This invention relates to vehicles, and has for its object primarily to provide a double-seated vehicle in which the rear or sliding seat is adapted to be moved forward and joined to the front or fixed seat to form therewith a continuous or apparently entire "body," and with the rear back reversed to constitute a "dos-a-dos," as carriages are called in which two seats are located back to back. A further object is to provide a third sliding seat beneath or within the front or fixed seat, which may be withdrawn to form a dos-a-dos with the front seat when the rear or sliding seat is "set back" or removed, whereby the vehicle may be readily adapted as a one, two or three seated conveyance or dos-a-dos in two styles and retain in each modification, strength, simplicity, convenience, and elegance of design.

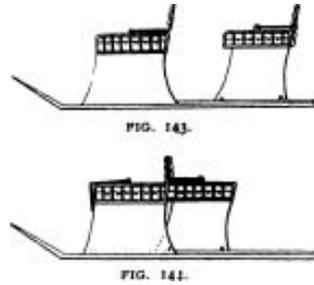
Alexander Dom, of Mount Healthy, Ohio, was granted a patent for a shifting seat vehicle dated April 29, No. 426,782. This invention relates to a device for elevating the rear portion of the front seat from off rear oscillating legs out of a locked position in order that the seats may be folded backward or forward. *Hub August 1898 page 330.*

illustrated by Figs. 145 and 146. This invention relates to an improvement in that class of carriages which are provided with two seats, and in which the forward seat is in a stationary position, while



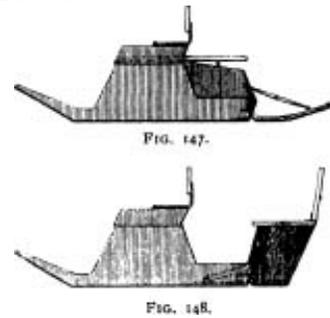
the rear seat is adapted to be moved forward into a position corresponding with the forward seat, so, as to make the carriage substantially a one seat carriage or moved rearward into position as a second or rear seat, and commonly called "jump seat carriages," in contradistinction to a carriage in which the two seats are in stationary positions, and particularly to that class in which the rear seat is adapted to slide on guides backward and forward from the single seat to the double seat position, the rear seat passing under the forward seat, the rear seat being of greater length than the forward seat, and so that in the forward position the forward seat will stand within the rear seat. The object of this invention is a construction which will permit the jump seat to be made of full length and yet readily brought into the contracted or forward position.

George E. Spare, of New Haven, Connecticut, was granted a patent on a jump seat carriage, dated Sept. s, No. 435,717, The object of this invention is to make the front seat positively stationary, and at the same time make the rear seat readily movable into or from the single seat and give to the rear



seat a length somewhat greater than that of the front seat, whereby the contracting of the rear seat, as in many of this class of carriage, is avoided; and the invention consists in supporting the front seat upon uprights so that the support comes at the front edge of the seat, leaving longitudinal slots in the uprights beneath the seat open at the rear, the plane of the rear seat corresponding to the said slots, so that the rear seat in being moved forward will pass into said slots from the rear and into a position beneath the forward seat, the rear seat being of a length greater than that of the front seat, so that the arms of the rear seat pass outside of arms of the forward seat.

Joseph F. Goodrich, of New Haven, Connecticut, was granted a patent for a convertible carriage dated Aug. 19, No. 434,663, illustrated by Figs. **143** and **144**. This invention relates to an improvement in convertible carriages, the object being to produce a simple and convenient vehicle of the sliding seat type adapted to be converted into a one seated carriage, a two seated carriage and a dos-a-dos. With these ends in view the invention consists in the combination, with a fixed seat, of a sliding seat adapted to be moved up to or over the fixed seat, and in certain details of construction and combinations of parts.



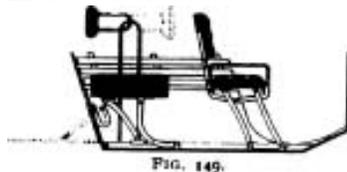
George E. Spare, of New Haven, Connecticut, was granted

a patent on a jump seat carriage dated Sept. 2, No. 435,716,

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to seat two persons comfortably. This hitherto

Joseph H. Goodrich, of New Haven, Connecticut, granted a patent dated Sept. 9, No. 436,120, illustrated by Figs. **147** and **148**. This invention relates to an improvement in that class of vehicles which are convertible for riding back to back, and is applicable to carriages, sleighs, and particularly to those having jump seats, the object being to increase the range of conversion and the capacity of the vehicles, and at the same time preserving in a very compact and attractive form by a strong, cheap, and durable construction. With these ends in view this invention consists in a folding extension made in one or more parts and hinged at its lower edge to the body of the vehicle, at or near the rear edge thereof, and folding upward into its retired position, which it virtually merges into the vehicle body, and downward and backward into its operative position, in which it constitutes an extension of the body and forms a foot rest for persons riding backward in the conversion of the vehicle into a dos-a-dos.



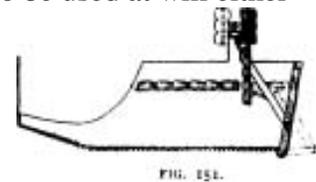
M. M. Dennett, of Amesbury, Massachusetts, was granted a patent on a shifting-seat vehicle dated Oct. 21, No. 438,610, illustrated by Fig. **149**. This invention has for its object to construct a wagon containing two seats, whereby

necessary narrowness of the front seat has been one of the great

objections to vehicles of this class, to remedy this defect, the construction of the front seat is such that its sides may be extended to the proper width when the seat is brought up and the lazy back raised, to be again contracted upon the turning down of the lazy back preparatory to folding the seat down into the body of the vehicle. *Hub January 1899 pages 634-635.*

During the year 1891 twenty patents were issued for adjustable or shifting seat vehicles. In a few cases new and novel devices were brought out, and in others there were decided improvements on previous patents. Some proved of value to the patentees and contributed largely to the popularity of the traps at that time, while others appeared to have reached their climax at the time the patent was granted. Eleven of these patents were granted to Amesbury, Massachusetts, inventors.

Joseph T. Clarkson, of Amesbury, Massachusetts, was granted a patent dated Feb. 17, 1891, No. 446,429, for a shifting seat carriage, illustrated by Fig. **151**. This invention relates to that class of carriages which are adapted and intended to be used at will either as a single seat or double seat carriage—that is, which may be arranged with only a seat in which the occupants face to the front, or with one such seat and another seat the occupants whereof face



when the parts are in a certain position all the riders may sit facing forward and when in another position but one seat is utilized, the riders facing forward, and when in another position the two seats are utilized, but arranged back to back. In carrying out this invention the front seat is made in any well known form to be folded in the bottom of the wagon, and the rear seat is made as a jump seat to be utilized as a rear seat or as a front seat when moved forward. Two vertical side supports are secured to the wagon-body--one at each end of the rear seat--and to the top of these supports a back is pivoted, so that it can be utilized as a back for the rear seat when the riders face forward or when the riders face backward. The rear end of the wagon is pivoted to the body to serve as a drop tail-board, which may be let down to a level with the bottom or floor of the wagon-body, when the rear seat is



utilized by the riders facing backward.

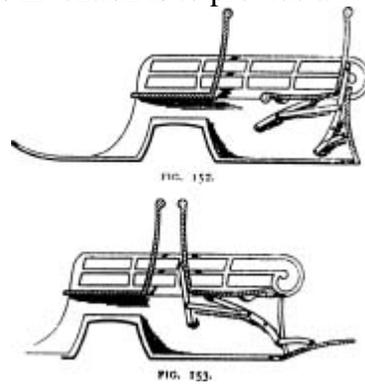
Elmer J. Hess, of Wyoming, and W. Le B. Hawes, of Cincinnati, Ohio, were granted a patent on jump seat vehicles, dated Oct. 21, No. 438,884, Fig. 150. This invention relates to improvements in jump seated vehicles in which the front seat, when in use, can be readily extended so as to become of the same length

as the back seat jump seats as ordinarily constructed are too narrow

to the rear. The leading and novel feature is the combination whereby seat with back is raised by closing the tail board.

George E. Spare, of New Haven, Connecticut, was granted a patent dated March 3, 1891, No. 447,547. for a convertible carriage. This patent related to improvements upon previous patents taken out by him, whereby the construction was simplified and the adjustment of the seats made more easily operative.

H. P. Wells and Osgood Morrill, of Amesbury, Massachusetts, dated March 3, 1891, No. 447,591, illustrated by Figs. 152 and 153. The object of this invention is to provide a



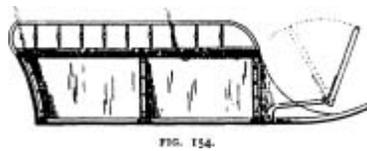
carriage in which are combined a fixed front seat and a reversible

rear seat, which is actuated through certain mechanism by raising

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and lowering the tail board. The claims covering the combination of the hinged, tail board and the seat with its specially constructed operating irons.

S. R. Bailey, of Amesbury, Massachusetts, was granted a patent dated March 10, 1891, No. 447,752, illustrated by Fig. 154. This invention relates to carriages provided with adjustable seats; it

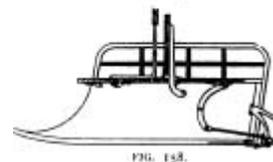
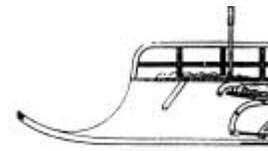


consists of the novel and complete combinations relating thereto. The claims cover an adjustable seat carriage, and in combination with said seats provided with suitable supporting projections to coact therewith, the hanger plates secured to the sides of the body at the proper height from the floor, and having seats to receive said supporting projections, substantially as specified. In combination with the front and rear seats provided with their supporting projections or studs, the hanger plates duly secured to the body sides and provided with a series of seats for said studs, so arranged that said seats may be adjusted therein in the positions specified.

Various additional combinations covering the construction and operation are covered by the claim. This is one of the most successful of the many patented traps offered to the trade. Charles Comstock, of Indianapolis, Indiana, was granted a patent dated March 24, 1891, No. 449,095, for a jump seat for vehicles. This invention relates to improvements in jump seats for vehicles, the object being to provide a jump seat which shall be simple,

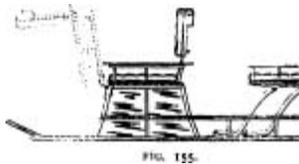
in view the invention consists in the peculiarities of construction and, combinations of parts. The claims are based mainly on the double jointed arms, and their combinations.

Another patent was granted the above parties for jointed irons for vehicles, also bearing date March 31, 1891, No. 449,419, further strengthening the prior claim on the jointed irons.



Harlan P. Wells, of Amesbury, Massachusetts, was granted a patent dated April 7, 1891, No. 449,841, illustrated by Figs. 157 and 158, for a carriage. The claims cover a two seated carriage, the combination of a front seat, a rearward facing rear seat, and an adjustable back for said rearward facing seat, arranged to constitute a deck panel when lowered upon the rear seat, substantially as specified. The combination of a seat constructed to be raised and lowered, a deck panel arranged to be raised to serve as the back of said seat when in position for use, and a hinged tail board connected with said seat and panel,

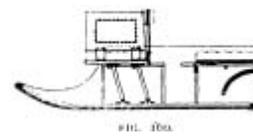
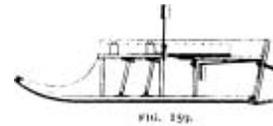
durable and cheap in construction, of sufficient length to overreach the bed, to give greater seating capacity, and whereby the cushioned part may be folded up sufficiently to permit of its being readily turned over between the sides of the body and beneath the next adjacent seat.



George H. Hutton and George H. Hutton, Jr., of Baltimore, Maryland, were granted a patent dated March 31, 1891, No. 449,365, for a convertible vehicle, illustrated by Figs. **155** and **156**. This invention relates to an improvement in that style of vehicles where a jump seat is so arranged that by shifting it the vehicle can be converted into a two seated carriage, a one seated carriage, or a "dos-a-dos"--i. e., a carriage having two seats back to back. The object is to produce a more simple, cheap, and convenient

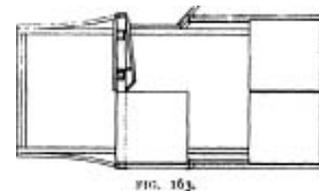
arrangement wherein the number of parts are reduced. With this end

whereby the opening and closing of the tail-board will actuate the seat and will raise and lower said panel in the manner and for the purposes specified and other combinations incident to the construction of said carriage. *Hub February 1899 pages 664-665.*



J. T. Clarkson, of Amesbury, Massachusetts, was granted a patent dated July 14, 1891, No. 455,738, for a shifting seat for carriages, illustrated by Figs. **159** and **160**. This invention relates to what are known as "two-seated" carriages--that is, carriages having a front and rear seat; and it consists in certain means and the combinations thereof and therewith, whereby the front seat may be arranged in a forward or more rearward position, whereby the rear seat may be so arranged that the occupants thereof may, as preferred,

face to the front or rear, also whereby access is had from the front of the carriage to the rear seat, and also whereby the, front seat may, be arranged as the sole seat, with the rear seat arranged as part of the hack of the



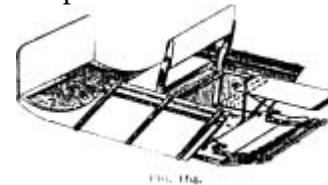
front seat.

Joshua J. Gilbert, of Syracuse, New York, was granted a patent dated Aug. 11, 1891, No. 457,530, for a vehicle. This invention relates to an improved vehicle ordinarily termed a "buckboard," and has for its object the production of a simple and effective construction having a movable rear seat for permitting the occupants to ride dos-a-dos or facing in the same direction, as may be desired; and to this end the invention consists, essentially, in a front seat on the vehicle body, guides extending rearwardly from the front seat, a rear seat movable on the guides and provided with a reversible back, a rounding projection on the rear seat for bearing upon said guide and lessening the friction, spring actuated locking bolts for holding the seat in its adjusted position, a pivoted lever hinged to the movable seat, and connections between said lever and the bolts for withdrawing the latter from their locking position, and furthermore, in a front seat having its seat portion hinged, an auxiliary seat hinged beneath the seat portion of the front seat and a depending projection secured to the hinged seat, a spring bar for tensioning the locking bolts, and a guide for the spring bar, and in the detail construction and arrangement of the parts.

Fourteen patents were granted during the year, ten of which were to Amesbury, Massachusetts, inventors, several of which were new and novel in their construction and contributed largely to make the trap a popular vehicle; and to Amesbury manufacturers, more

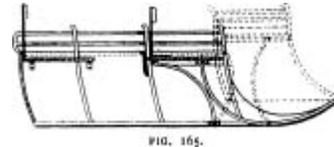
Massachusetts, for a carriage. This invention has for its object the opening of the door in the side of the body (to give access to or egress from the rear seat) by the act of raising the front seat, and the closing of said door by the closing down of the front seat, the claim being for a carriage body door hinged, to a vertical standard at its front edge and arranged to swing inwardly and connected with a rising seat, so that as the seat is raised the door is thereby swung inward, the combination of door arranged to swing inwardly, seat hinged at its front edge, and a rod connecting the two by joints having a pivoted action.

P. J. Hanley, of Amesbury, Massachusetts, was granted a patent on February 2, 1892, No. 467,275, illustrated by Fig. 164, for a shifting seat for vehicles. This invention relates to an improvement



in seats for vehicle bodies, and has for its object to provide a seat that may be readily moved in a right line forward or backward upon shoulders or supports located on the sides of the vehicle body, and when carried backward until, it is clear of such supports it will be held in such position that it may be conveniently reversed, if desired, and returned to its normal position.

H. P. Wells and Osgood Morrill, of Amesbury, Massachusetts, were granted a patent dated March 22, 1892, No. 471,157, illustrated by Fig. **165**. The object of this invention is to



than any other, is the carriage trade of the United States indebted for the leading features in mechanism and styles. The first of the year was granted to Joseph T. Clarkson, of Amesbury, Massachusetts, dated January 12, 1894, No. 466,773, illustrated by Figs. **161** and **162**. This invention relates to what are known as "adjustable seat carriages"; and its object is to enable the user to convert his vehicle at will into a one, two, or three seat carriage in an expeditious manner, according as he desires to carry more or less persons therein; and it consists in features of novelty and the combinations thereof.

The main feature is the arrangement whereby the rear seat is hinged to the front seat, by which it is worked.

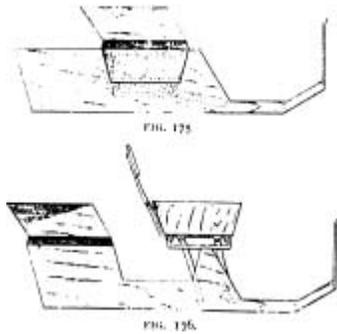
On January 46, 1894, No. 467,518, illustrated by Fig. **163**,

a patent was granted to Augustus N. Parry, of Amesbury,

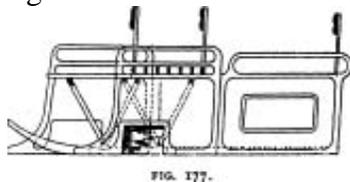
produce a two seated vehicle body in which the longitudinally divided front seat is permanently secured to a corresponding section of the side panels of the body and is provided with a set of jumping irons for each section, so that upon whichever side of the vehicle a passenger on the rear seat desires to enter or leave it, it is only necessary to jump forward the section of the front seat on that side to thereby open an unobstructed passage on that side to and from the rear seat.

John McPartland, of Wakefield, Rhode Island, was granted a patent dated May 3, 1892, No. 474,097, illustrated by Figs. **166** and **167**. This invention relates to seats for buckboard

vehicles; and its objects are, first, to provide optionally one or two

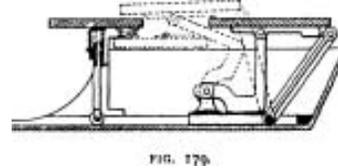


patent dated August 23, 1892, No. 481,358, illustrated by Figs. **175** and **176**. This invention relates to improvements in jump seat vehicles, the main object being to provide an improved construction for extending the sides of the front seat when the latter is brought to position for use and contracting said sides when the seat is folded down under the back seat, whereby said front seat may be made narrow enough to fit between the vehicle sides and also wide enough to accommodate two persons without crowding.



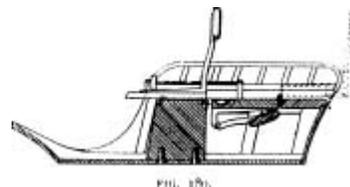
Augustus N. Parry, of Amesbury, Massachusetts, was granted a patent dated September 6, 1892; No. 482,189, illustrated by Fig. **177**. This invention relates to carriages formed with a wheel house so that the front wheels pass

door slides the front seat on that side back into its original position.



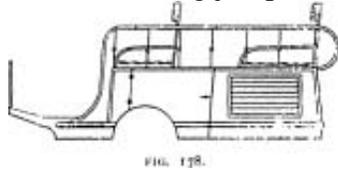
R. Fawcett, of Salem, Ohio, was granted a patent for a shifting seat vehicle, dated October 18, 1892, illustrated by Fig. **179**. This invention relates to an improvement in seats for carriages, and more particularly shifting seats, the object of the invention being to construct a jump seat in such manner that the seat shall be firm and steady and so that lateral motion of the seat shall be prevented. Also to construct a front seat for a vehicle in such manner that it may, be rigid and so that it may be swung out in either direction to permit the admission of persons to the vehicle from either side, and, further to produce improved jump or shifting seats which shall be simple in construction, cheap to manufacture, and effectual to the performance of its functions.

During the year 1893 fifteen patents were granted for shifting and jump seats, some of which contained now and novel features, while others were but evasions of other patents. *Hub April 1899 page 740.*



H. A. Moyer, of Syracuse, New York, was granted a patent on a folding seat for carriages, dated Jan. 17, 1893, No.

beneath, or cut under the body by reason of their extending a limited distance up into the same; and it consists in so constructing, attaching, and arranging the front seat that it can be jumped forward, upon jumping irons that are pivoted to both the body and seat, so that said front seat will be at all times level, whether it be in its rearward position or its forward position, or when being jumped forward.

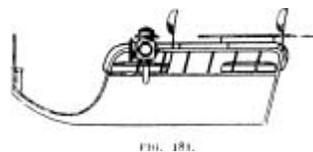


Francis N. Vanier and Ovila Vanier, of Amesbury, Massachusetts, dated September 20, 1892, No. 482,858, illustrated by Fig. **178**. This invention relates to two seated carriages or wagons which are provided with doors on the sides for admission to or egress from the rear seat; and it consists in the construction below described, whereby the opening of one of the side doors will cause the front seat on that side to slide forward, thus providing ample room on that side for the occupant of the rear seat (which remains

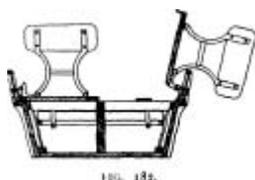
stationary) to pass out between the front and rear seats. Closing the

490,080, illustrated by Fig. **180**. This invention relates to the class of carriage seats which are hinged to swing in a vertical plane so as to afford ready access to another seat at the rear of the swinging seat. The object is to render the entire front seat capable of being thrown into a position to form a wide and convenient passage for persons from the front portion of the body to the rear portion thereof, and also render said seat self sustaining in said position. And to that end the invention consists essentially in the combination with the carriage body, of a laterally swinging prop pivoted to the body in proximity to one side thereof, and the seat hinged at one end to said prop to swing with its opposite end vertically to and from its support there at.

John Currier and Frederick Ellis, of Amesbury, Massachusetts, were granted a patent on a carriage dated February 28, 1893, No. 492,461, illustrated by Figs. **181** and **182**. This



invention relates to two seated carriages, carriages having a front and rear seat, and particularly to that

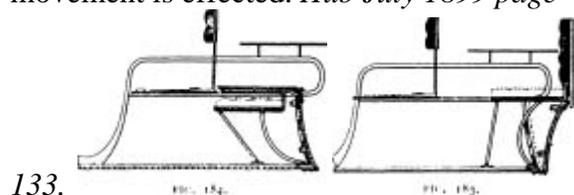


said sections of the side panels moved forward on a curved line, so that the front edges of said half seats dip downward, with the effect of moving their rear upper portions forward, thus providing a very

class of carriages in which one of the seats is divided longitudinally with the carriage so as to make two half seats, each independent of the other; and the invention consists in the novel construction and arrangement of parts hereinafter described whereby each half seat may be swung outwardly over the rail and returned to its original position, so that entrance may be had to the other seat.

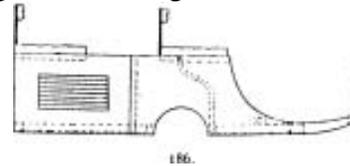
This invention is applied to the front seat of a carriage, so that the front seat is composed of two half seats and the rear seat is made integral, but it can be applied to either seat as desired, making, if it is deemed advisable, the rear seat in halves and the front seat a whole or integral seat.

Osgood Morrill and Harlan P. Wells, of Amesbury, Massachusetts, were granted a patent on a carriage seat dated February 28, 1813, No. 492,414, illustrated by Figs. **183** and **184**. The object of this invention is to provide a two seated carriage which can be changed by the occupant without leaving his seat, from a single to a double seated carriage, or can by the same means have the rear seat folded down so that the vehicle will, for the time, have but one seat. And the invention consists, first, in so constructing and arranging the rear seat, deck panel, and tail board that said parts are manipulated by taking hold of the deck panel and moving the same and thereby moving the other parts; and also in certain of the devices by which said movement is effected. *Hub July 1899 page*

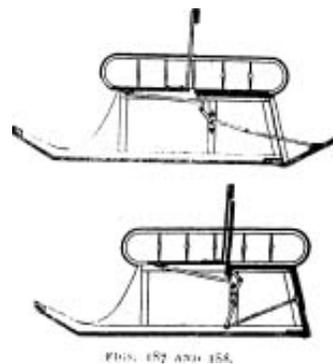


133.

broad passage or entrance for the admission of passengers to the rear seat, the greatest breadth being where it is most needed, viz., above the feet, where the body takes up more space, especially when in the somewhat bent position assumed in climbing into a carriage.



Augustus N. Parry, of Amesbury, Massachusetts, was granted a patent for a shifting seat for carriages dated April 4, 1893, No. 494,794, illustrated by Fig. **186**. The object of this invention is to provide a quick and easy means of moving the front seat of a two seat vehicle forward to the requisite extent to allow passengers to enter and leave the vehicle between the rear end of the front seat and the rear seat, when the front seat is so moved forward. And the invention consists in mounting the halves of the front seat upon rods practically vertical, that are bent to the rear, as when the seat is closed; but which will be bent to the front when the seat is opened; said rods being pivotally attached to the seat and body.



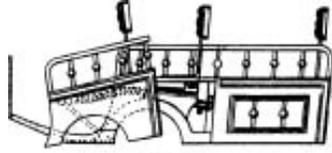


FIG. 185.

Jason Spofford, Jr., of Amesbury, Massachusetts, was granted a patent dated February 28, 1893, No. 492,477, illustrated by Fig. **185**. This invention relates to carriage bodies provided with front and rear seats, the front seat being divided longitudinally with the carriage body; and it relates specifically to the class of carriage bodies, the two halves of whose divided front seats are rigidly attached to short sections of side panels which move with the half seats when they are moved forward to provide space for the admission of passengers and when they are returned to their original position; and my invention consists in the carriage body constructed

as hereinafter described, whereby the front half seats are with the

Joseph T. Clarkson, of Amesbury, Massachusetts, was granted a patent for a shifting seat carriage, dated May 23, 1893, No. 497,765, illustrated by Figs. **187** and **188**.

This invention relates to carriages adapted for use with either one or two seats; the rear seat being arranged to be turned down to a horizontal position when used as a rear seat and to be turned up to supplement the lazy back of the front seat when that is the sole seat of the carriage, the front seat being arranged to be automatically moved forward when two seats are employed, and to be moved back to the middle of the body when it serves as the sole seat of the vehicle, also in certain improvements in the means and manner of arranging the respective devices by which the movement of the tail board serves to actuate the rear and front seats.

John Belmes Armstrong and Robert Parker, of Guelph,

Canada, and Charles W. Vernon, of Flint, Michigan, were granted a



FIG. 187.

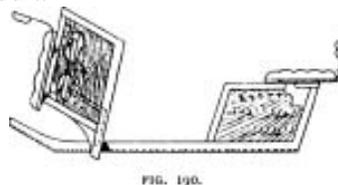


FIG. 188.

patent for shifting seat vehicles, dated June 13, 1893, No. 499,369, illustrated by Fig. **189**.

This invention relates to the construction of that class of vehicles adapted to be used either as a single or double seated conveyance, and provided with means for shifting and concealing one of the seats at the will of the user. The principal objects in view are the simplification of the devices and the correct balancing of the weight to load. To this end the invention embraces the combination of two sliding seats arranged in different horizontal planes a pivoted tail board, and a particular arrangement of interposed pivoted and slotted levers and telescoping braces, whereby the seats and tail board are caused to move in unison for quickly shifting the same and correctly balancing the load, all as will hereafter more fully appear. *Hub August 1899 page 165.*

John Currier, of Amesbury, Massachusetts, was granted a

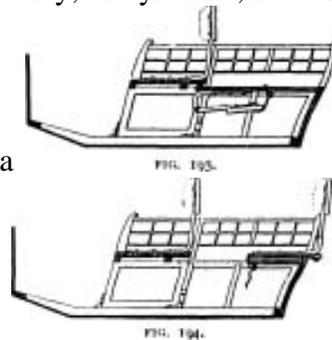


patent for a carriage, dated June 13, 1893, No. 499,452, illustrated by Fig. **190**. The object of this invention is to change the front seat of two-seat vehicles so that when the front seat is employed as the sole seat it can be arranged nearer the center of the body than when it is used in connection with a rear seat: and the invention consists in so connecting the top portion of the front seat with the seat base or bottom that said top portion can be adjusted in either a forward or rearward position, while the entire seat can

Among these objects may be mentioned as the leading features: A rear seat having a combined slide and pump movement to bring it into proper position to be under the front seat, or to stand in the rear of the carriage body for occupancy; the construction of the rear seat whereby the sides may turned inward to be snugly under the front seat, and whereby the lazy back of the rear seat is made to form a part of the back of the front seat when the rear seat is folded beneath the front seat; the provision of a novel stop construction whereby the front seat is held in an upright position when tilted forward to allow the adjustment of the rear seat beneath it, or to afford easy access to and from the rear seat; rigid connection of the side irons of the jump or rear seat whereby the frame thereof is made stiff and reliable; a locking device for holding the seat when in position and a stop for holding the rear seat and preventing its tipping backward when occupied.

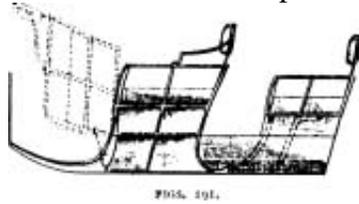
C. C. Bradley, of Syracuse, New York, was

granted a



patent on a two-seated vehicle, dated August 15, 1893, No. 503,308, illustrated by Figs. **193** and **194**. This invention relates to that class of two-seated vehicles in which the seats are movable, so that the vehicle can be used either with both seats as a two-seated

be turned forward in order to create a space between the front and rear seats by which the passengers may enter or leave the rear seat; also in so hinging the rear seat to the body that it can be turned out to serve as a seat, or turned over to serve as a deck panel.

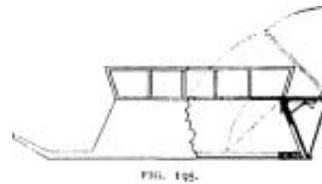


vehicle, or with the front seat only as a vehicle with a single seat, and has the object to provide simple means for converting the vehicle from a two-seated, to a single-seated vehicle and vice versa, and for holding the seats securely in their respective positions, while presenting a neat and attractive appearance.

V. H. Emond, of Boston, Massachusetts, was granted a

patent for a carriage, dated September 19, 1893, No. 505,197,

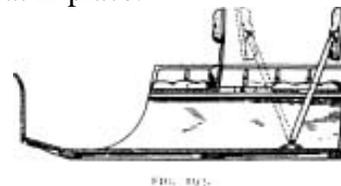
William H. Sparks, of Camden, New Jersey, was granted a patent for a jump-seat for carriages, dated June 27, 1893, No. 500,354, illustrated by Figs. 191 and 192. This invention relates to improvements in jump seats for carriages, and has for its object the provision of certain novel features of construction and operation,



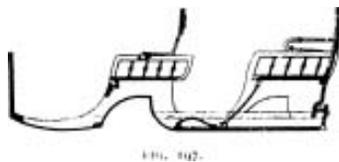
whereby the utility and compactness of the device are increased.

illustrated by Fig. 195. This invention relates to carriages and consists of a device for opening and closing the rear seat thereof. The object is to so construct the rear portion of the carriage body and the rear seat that the latter may, when not required for use, be folded within the former in such manner as to entirely conceal the seat, and at the same time give a neat and graceful appearance to the vehicle.

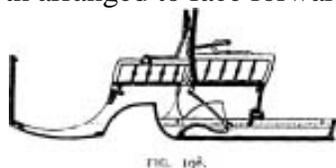
convenient device for locking the sliding rear seat in place.



John Currier and Frederick Ellis, of Amesbury, Massachusetts, was granted a patent for a carriage, dated November 21, 1893, No. 508,919, illustrated by Fig. **196**. This invention has for its object to provide a two seat carriage which may be changed from a single to a double seat carriage, and which when used as a double seat carriage will close the space between the tail board and the rear ends of the sides; furthermore to provide a carriage in which the rear seat will be firmly supported when in use; and finally, to provide a carriage which shall be simple and strong of construction, durable in use and comparatively inexpensive of production. *Hub September 1899 page 203.*

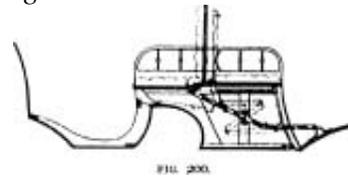


Frederick Meyer, of Buffalo, New York, was granted a patent for a convertible carriage, dated November 28, 1893, No. 509,385, illustrated by Figs. **197** and **198**. This invention relates to convertible carriages in which the seats may be placed one under the other to form a one seated carriage, or both arranged to face forward

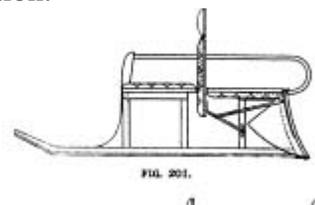


to form an ordinary two seat carriage

Francis G. Davis, of Watertown, New York, was granted a patent for a shifting seat for vehicles, dated December 29, 1893, No. 511,515, illustrated by Fig. **199**. This invention relates to that class of vehicles which are provided with a stationary front seat and back upon which the occupants face forwardly, and a movable rear seat and back, which can be shifted so as to permit its occupants to face either forwardly or rearwardly. The object is to produce simple devices, whereby the movable rear seat and back can be easily shifted. *Hub November 1899 page 315.*



Charles H. Vorhes, of Kalamazoo, Michigan, was granted a patent for a vehicle body, dated January 2, 1894, No. 511,825, illustrated by Fig. **200**. The objects of this invention are first to provide a vehicle body and folding seat so, arranged that it can be readily changed from a, single seated to a two seated vehicle, the seats being back to back or dog-a-dos when the two are used; second, to provide a vehicle that can be changed from a dos-a-dos to a single rig, so that it will not have the appearance of being a two seated vehicle with but one seat when in the single form; third, to provide a system of levers and connections between the seat and tail board, so that raising and lowering the tail board will operate the seat and lock it in position.



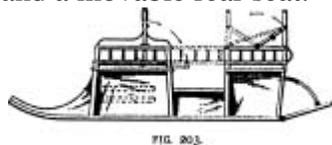
or placed  
back to back  
to form a dos-  
a-dos  
carriage. This  
invention has  
more special  
reference to  
vehicles of  
the class in  
which the rear  
seat slides  
forward under  
the front seat.  
One of the  
objects is to  
so construct  
the carriage  
that when  
both seats are  
arranged to  
face forward,  
or are placed  
dos-a-dos, the  
rear seat is on  
a level with  
the front seat  
or at the same  
elevation  
above the  
body, thus  
preserving the  
symmetry and  
sightliness of  
the vehicle. A  
further object  
is to provide  
such a  
construction  
of the  
convertible  
vehicle as will  
permit the  
front portion  
of the body to  
be recessed,

to allow the front wheels to pass under the same and

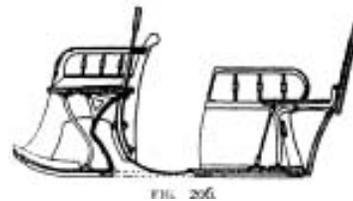
thereby make a shorter turn, and finally to provide a simple and

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John Miller, Jr., of Amesbury, Massachusetts, was granted a patent for a jump seat for carriages, dated January 9, 1894, No. 512,618, illustrated by Figs. **201** and **202**. This invention relates to improvements in combination single and double seat carriages of the kind having a front seat and a movable rear seat.



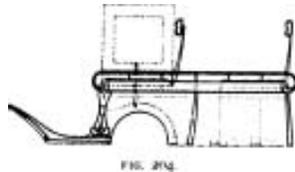
George J. Saurhrey, of Columbus, Ohio, was granted a patent for a carriage body, dated February 13, 1894, No. 514,776, illustrated by Fig. **203**. This invention has relation to carriage bodies provided with removable side panels, reversible backs and adjustable seats, having suitable securers to hold them in place. It is the object of the invention to provide a carriage body that can be changed from a one seat concern into a body having



the whole or a part of the wheelhouse is secured, so as to move with said seat, and consists in so arranging and constructing said parts that when the front seat is moved forward to create space between it and the rear seat to allow a passage between them, a portion of the carriage will be arranged to cover the space that at other times constitutes the wheelhouse; so that when the front seat is thus moved forward, the person entering or leaving the rear seat will have said otherwise open space filled by a tread and can step thereon to facilitate entering or

two or three seats; also to supply a back that can be reversed at the will of the riders, so that they can ride facing either front or back also to provide a carriage body with removable side panels between the front and rear seats. When the rear seat is occupied the panels can be removed, and when the rear seat is not occupied the panels can remain in place. Thus the appearance of the body is easily and readily changed.

Erik Selen, of Newark, New Jersey, was granted a patent dated February 20, 1894, for a combined side door and seat for



carriages, No. 514,968, illustrated by Fig. 204. This invention relates to a combined side door and movable seat for vehicles such as traps, etc., and it consists in the construction and arrangement of parts whereby when the door of the vehicle is opened one of the seats, preferably in front of the vehicle, is automatically raised out of the way to permit access to the outer seats, and it consists also in the combination and arrangement of the various parts. *Hub February 1900 page 485.*

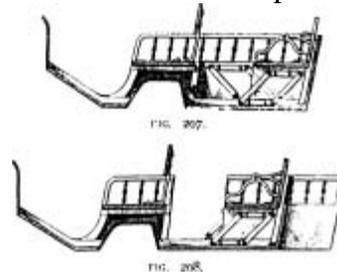
Harlan P. Wells, of Amesbury, Massachusetts, was granted a patent for a carriage, dated March 13, 1894, No. 516,326, illustrated by Figs. 205 and 206. This invention relates to carriages in which are arranged a front seat and a rear seat, and in which the

front seat can be moved or jumped forward, and to which front seat

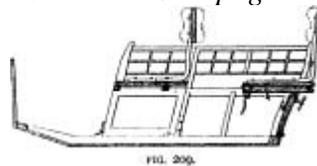


leaving the carriage.

Charles H. Stratton, of Buffalo, New York, was granted a patent for a vehicle, dated April 10, 1894, No. 517,988, illustrated by Figs. 207 and 208. This invention relates more especially to vehicles which are provided with side recesses or passages for

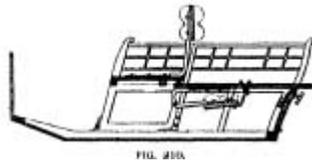


entering the vehicle. Heretofore these passages have usually been closed by hinged doors which swing outward in opening, but this construction is undesirable because such doors become loose and rattle and are liable to swing against the wheels of the vehicle and become marred. Such side passages have also been formed by tilting the front seat forwardly. The object of this invention is to provide the vehicle with side doors or panels which overcome the above objections and which obviate the necessity of displacing the front seat in entering the vehicle. *Hub March 1900 page 511.*



A patent was granted to Christopher C. Bradley and Thomas Faulder, of Syracuse, New York, for a shifting seat for vehicles, dated May 15, 1894, No. 519,832, illustrated by Figs. 209 and 210. This invention relates to that class of vehicles which are provided with shifting seats, and has the object to provide a vehicle

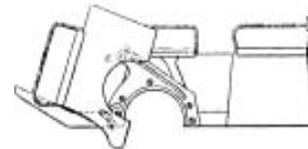
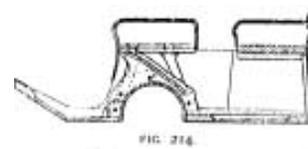
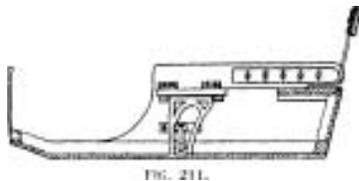
which has a front seat and two shifting rear seats, so that by adjusting



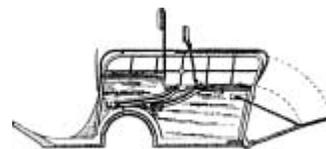
the seats the vehicle can be used as a one-seated vehicle, a two-seated vehicle with both seats facing

forwardly, or a two-seated vehicle with the seats arranged dos-a-dos, the construction and arrangement of the rear seats being such that they can be folded down, when not required for use, one behind the other, to form a deck in rear of the front seat,

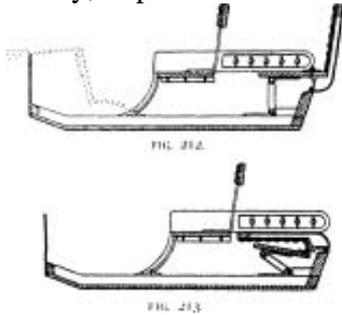
Charles N. Dennett, of Amesbury, Massachusetts, was granted a patent for a carriage, dated July 17, 1894, No. 522,976, illustrated by Figs. 211. This invention relates to that class of



George E. W. Stivers, of New York, New York, was granted a patent for a, shifting seat for vehicles, dated December 11, 1894, No. 530,608, illustrated by Figs. 216 and 217. This invention relates to improvements in that class of vehicles which are ordinarily



carriages which are provided with divided seats--usually front seats---i.e., seats which are divided longitudinally with the carriage body into two seats; and particularly to those divided seats which are adapted to be swung up sidewise or toward the side of the carriage body, to provide room for passage.



C. N. Dennett, of Amesbury, Massachusetts, was granted a second patent for a carriage, dated July 17, 1894, No. 522,976, illustrated by Figs. **212** and **213**. This invention relates to that class of carriages in which a seat and seat back are so arranged that when the seat is not in use it is lowered into the carriage body by moving the seat back or lazy back from its normal vertical position down into a horizontal position, in which it serves as a deck or deck panel.

Francis N. Vanier, of Amesbury, Massachusetts, was granted a patent, dated October 23, 1894, No. 527,909, illustrated by Figs. **214** and **215**. The object of this invention is to provide a carriage having two seats, the front one of which is mounted in grooves to be turned forward so as to allow room between it and the rear seat, so that the occupants of said rear seat can pass between the two seats in entering and leaving the carriage. *Hub July 1900 pages 168-169.*

termed driving traps. It particularly applies to a mechanism whereby a shifting seat may be adjusted to several different positions. It has for its object the provision of such a mechanism whereby the shifting seat can be readily adjusted to a dos-a-dos position, in which position two adjustments are secured, one of which depends upon the back of the forward seat for its back support and the other depends upon its own back; to a position facing to the front; and finally to a position under the forward seat to have the main body clear for the reception of bundles, parcels, etc. It also has for its object a construction which is simple, cheap, substantial and by means of which the seat can be easily manipulated to its various adjustments.

Paul Woods, of Wakefield, Rhode Island, was granted a patent on a shifting seat for vehicles, dated January 15, 1895, No.

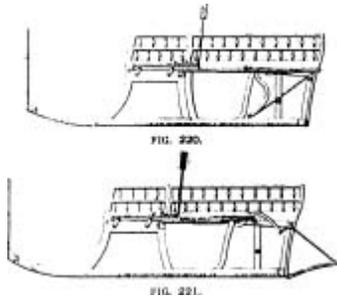
532,716, illustrated by Figs. **218** and **219**. The nature of this





invention consists in an improved track arranged upon the top rail of the wagon body, and in the opposite holding plates for the seat.

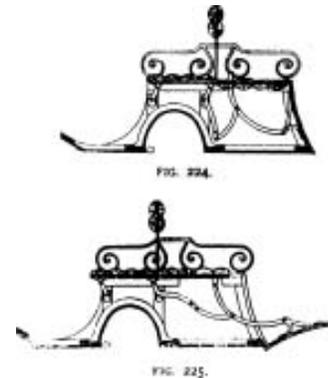
Charles H. Stratton, of Buffalo, New York, was granted a patent for a vehicle dated February 12, 1895. No. 534,019, illustrated by Figs. 220 and 221. This invention relates to that class



of vehicles in which the seats may be shifted to convert the vehicle into a one seat carriage a dos-a-dos carriage, or an ordinary two seated carriage in which the occupants of both seats face forward. One of the objects is to simplify the construction of the vehicle and reduce its cost of manufacture. The invention has the further objects to provide the vehicle with side doors or panels which permit convenient access to the rear seat without the necessity of displacing the front seat, and also to provide improved means for

in the respective parts, and the combinations thereof, by which the rear seat and back are attached in place, and by which said seat and back are raised into position and are lowered out of position for use; all as will be hereinafter described and pointed out in the claims. [Fig. 222 & 223 not given]

Seth H. Gage, of Amesbury, Massachusetts, was granted a patent on a carriage, dated March 5, 1895, No. 535,098, illustrated by Figs. 224 and 225. This invention relates to a two seated carriage, and it consists, first, in a construction whereby the rear seat and tail gate are so connected that when the tail gate is lowered the rear seat



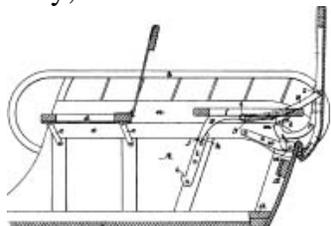
is in position for use as a seat, and when the tail gate is raised the rear seat is reversed so that its upper or upholstered side faces downward, and it serves the purpose of a deck, and, secondarily, in a construction whereby the front seat is so connected with the tail gate that it is caused to jump forward when the tail gate is lowered, and jump rearward when the tail gate is raised.

James A. McLean, of Amesbury, Massachusetts, was

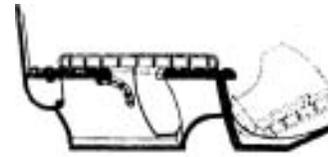
operating the supplemental rear seat or lazy back from the tail board. *Hub August 1900 pages 211-212.*

Herbert E. Wilford and Joseph T. Clarkson, of Amesbury, Massachusetts, were granted a patent for a carriage, dated February 26, 1895 [534,936, Fig. 222]. The object of this invention is to provide a carriage that can be adjusted for use with either one or two seats; in which the front seat may be jumped back and forth as the rear seat is in or out of use; and a rear seat of peculiar construction and peculiarly attached to the body, so that when the rear seat back is raised its seat is supported in position for use, while when said back is turned down the rear seat is by said act lowered beneath the

back and is out of the way within the body; and the invention consists



**FIG. 222.**



**FIG. 226.**

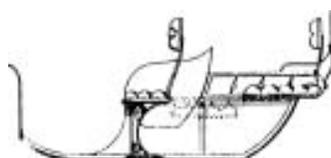


**FIG. 227.**

granted a patent for a carriage, dated May 7, 1895, No. 538,842, illustrated by Figs. 226 and 227. This invention relates to that class of carriages in which the rear seat and seat back are so constructed and arranged that said seat, when not in use, may be lowered into the carriage body by swinging the seat back or lazyback down from its normal vertical position into a horizontal position, in which latter position it serves as a deck or deck panel.

Morris Woodhull, of Dayton, Ohio, was granted a patent for a vehicle body, dated December 17, 1895, No. 551,703,

illustrated by Fig. 228. This invention relates to improvements in

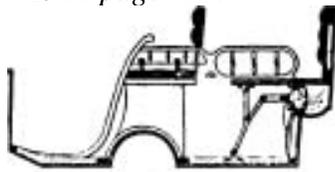


**FIG. 228.**



**FIG. 231.**

that class of vehicles in which the seats, instead of being stationary, are of a movable character, so that they can be arranged in different positions to present either a single or double seated vehicle, the construction being such that it shall embody features common to what are known as "surreys," and at the same time being capable of adjustment to form what is known as a "trap." The object is to provide such a vehicle in which the arrangement of the seats permits of the change from a single to a double seated vehicle without disturbing or changing the position of the forward seat; also to provide a construction of a novel character by which ready access may be obtained to the rear seat. A further object is to provide such a construction and arrangement of parts that ample leg room shall be provided on the rear seat, when used as a two seated vehicle, without unduly extending the body so as to make it objectionable as a single seated vehicle; and to provide a novel construction of the side arms or rails in connection with the devices for securing the top. *Hub December 1900 page 401.*



with but one seat facing to the front, or with two seats, one facing to the front and one to the rear, or with two seats, both facing to the front, as may in any case be desired; and it consists in the peculiar construction, arrangement and combination of the several parts.

Seth H. Gage, of Amesbury, Massachusetts, was granted a patent for a carriage, dated May 26, 1896. No. 560,706 Illustrated by Figs. **233** and **234**. This invention relates to a two-seated carriage, and it consists of the novel construction and arrangement of parts hereinafter described, whereby the rear seat may be used as a forward-facing seat; or it may be used as a rearward-facing seat, in which case the rear seat is jumped forward, its lazyback folded down, the lazyback of the front seat used by the occupant of the rearward facing rear seat, and the tail gate dropped and used for a foot rest; or the rear seat may be placed out of use, the jointed tail gate folding over and serving as a deck.

James N. Leitch, of Amesbury, Massachusetts, was granted a patent, dated June 16, 1896, No. 562,136, illustrated by Fig. **235**. This invention

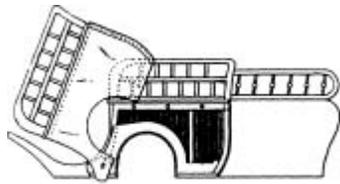
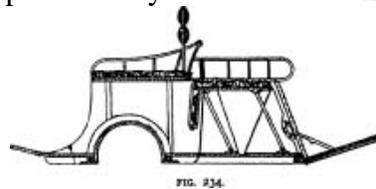
James N. Leitch, of Amesbury, Massachusetts, was granted a patent for a carriage, dated March 24, 1896, No. 556,853. Illustrated by Figs. 229 and 230. This invention relates to a two-seated carriage of the class in which when the rear seat is to be used the lazyback thereof is swung up into a substantial vertical position; but when the rear seat is not to be used the lazyback is swung down into a horizontal position and serves as a deck. Moreover, it relates to that class of carriage in which the lazyback, of the rear seat extends beyond--I. e., to the rear of the back of the body, whereby additional space is provided for the occupants of the rear seat without elongating the body. Charles N. Dennett, of Amesbury Massachusetts, was granted a patent, dated March 31, 1896. No. 557,195 Illustrated by Nos. 231 and 232. The object of

this invention is to provide a carriage that can be arranged for use

relates to two-seated carriages of the class in which the front seat is moved or swung forward toward the dashboard in order to allow space for access to and egress from the rear seat; and the invention consists in the construction hereinafter described of the front seat and adjacent parts of the carriage, whereby said front seat, instead of swinging from or rotating around a fixed center and falling, when swung forward, on the dashboard or the sills, swings or slides forward on a line



produced by a

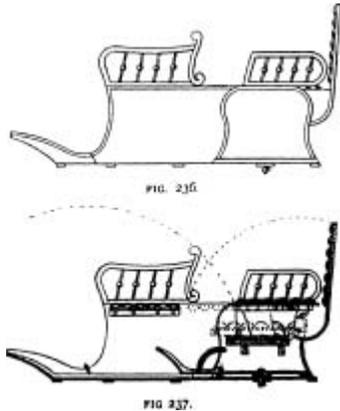


combination of cam-grooves, and is supported in its extreme forward position without resting on the dashboard or sills, but in a position elevated from and out of contact with both.

James A. McLean, of Amesbury, Massachusetts, was granted a patent, dated September 1, 1896, No. 566,790, illustrated by Figs. 236 and 237. This invention relates to that class of carriages in which the rear seat is reversible, that is to say, may be

which the rear seat and seat back are so constructed and arranged that said seat, when not in use, may be lowered into the carriage body by swinging the seat back or lazyback down from its normal vertical position into a horizontal position, in which position it serves as a deck or deck panel. The invention or improvement consists in the novel construction and arrangement of the irons or connections supporting the rear seat and connecting it and the lazyback with the carriage body in such a manner that said irons may be readily detached from the carriage body, and that when so detached the irons, rear seat and lazyback thereof may all be lifted bodily out of the wagon, as the only connection between the said parts and the carriage body is where the irons are

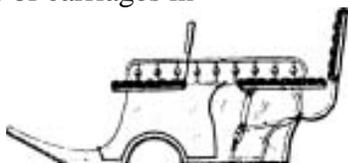
changed from a forward-facing position to a rearward-facing position, and



vice versa. In this invention the rear seat rotates in a horizontal plane, while secured to it and rotating with it, are portions of the sides of the body between which the seat, is located and also the lazyback, which is adapted to swing down and serve as it deck when the rear seat is not in use.

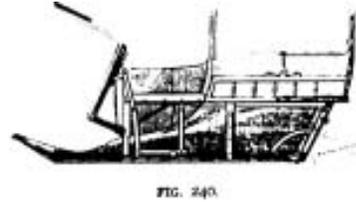
Also one bearing the same date, No. 566,791, illustrated by

Figs. 238 and 239. This invention relates to that class of carriages in



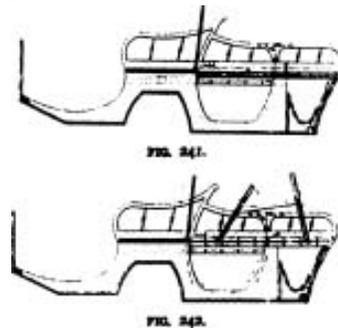
detachable secured to the body, as above mentioned.

Jacob N. Miller, of Bellefontaine, Ohio, was granted a patent for vehicle body, dated October 20, 1896, No. 569,794,



illustrated by Fig. 240, relates to certain improvements in interconvertible one and two-seated conveyances and especially in those of the surrey-trap order.

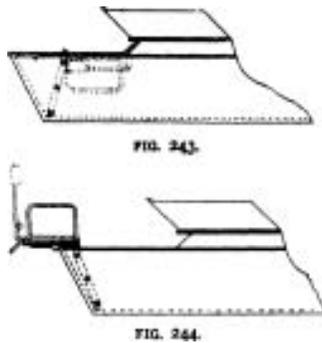
Charles A. Hennicke, of Buffalo, New York, was granted a patent, dated November 21, 1896. No. 571,859, illustrated by Figs. 241 and 242. This invention relates to that class of shifting seat vehicles which may be converted into a single seat vehicle, an ordinary seated carriage, or a dos-a-dos carriage. The invention for its objects to produce a similar vehicle of this character in which the



shifting seats are not liable to get out of order, to construct the vehicle that the rear seat is accessible without disturbing the front seat or its occupants, and to prevent the vibration or rattling of the various parts by simple means.

James A. Edwards, of Owosso, Michigan, was granted a patent for a folding seat for vehicles, No. 574,310, illustrated by Figs. **243** and **244**. This invention relates to any class of vehicles which ordinarily have a boot and in which a folding seat is desirable

in order to vary the passenger carrying capacity of the vehicle; and



its object is to provide a seat which can be used to accommodate extra passengers, children, or others, and which, when not in use, can be folded down into the boot and leave the vehicle the same in external appearance though it contained an extra seat, but was of the usual construction.

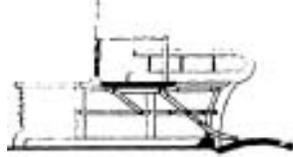


FIG. 245.

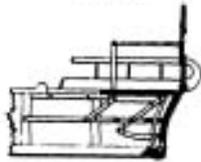


FIG. 246.

A. L. and F. H. Knoblaugh, of Cincinnati, Ohio, were granted a patent for a jump seat for vehicles, dated May 4, 1897, illustrated by Figs. **245** and **246**. The object of this invention is to provide a movable rear seat for four passenger vehicles which is easily operated by the tail gate to bring it near the front seat when the occupants desire to ride back to back, and to move it to the rear of the body when the tail gate is closed to form an ordinary four passenger vehicle. *Hub April 1901 page 34 & 35.*

