(No Model.) 3 Sheets—Sheet 1.

G. H. HUTTON & G. H. HUTTON, Jr.

CONVERTIBLE VEHICLE.

No. 449,365. Patented Mar. 31, 1891.

Fig. 1.

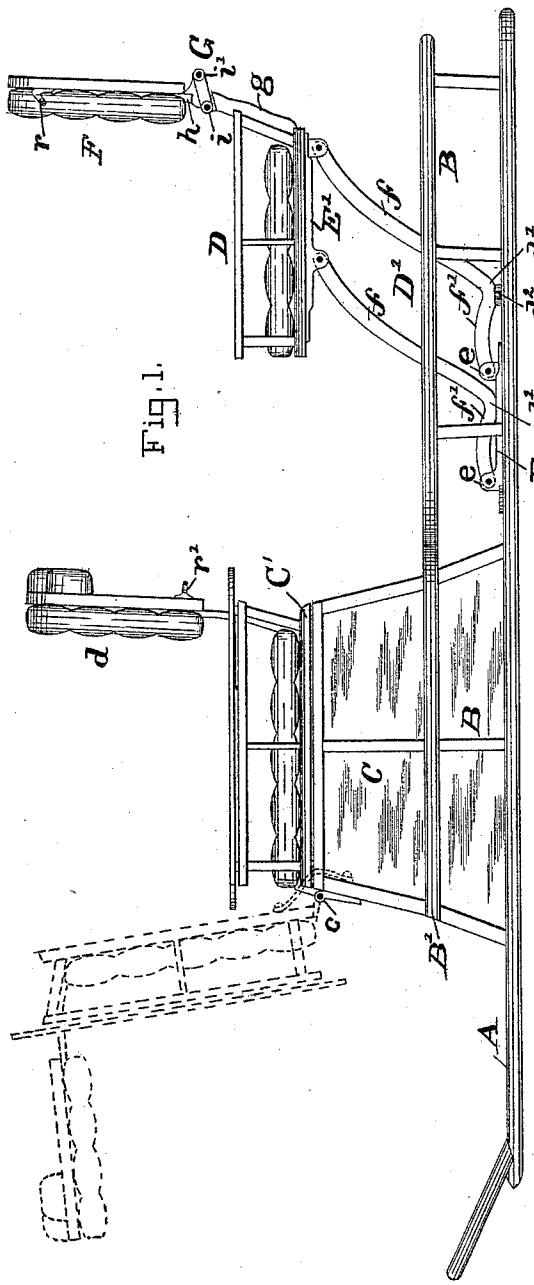
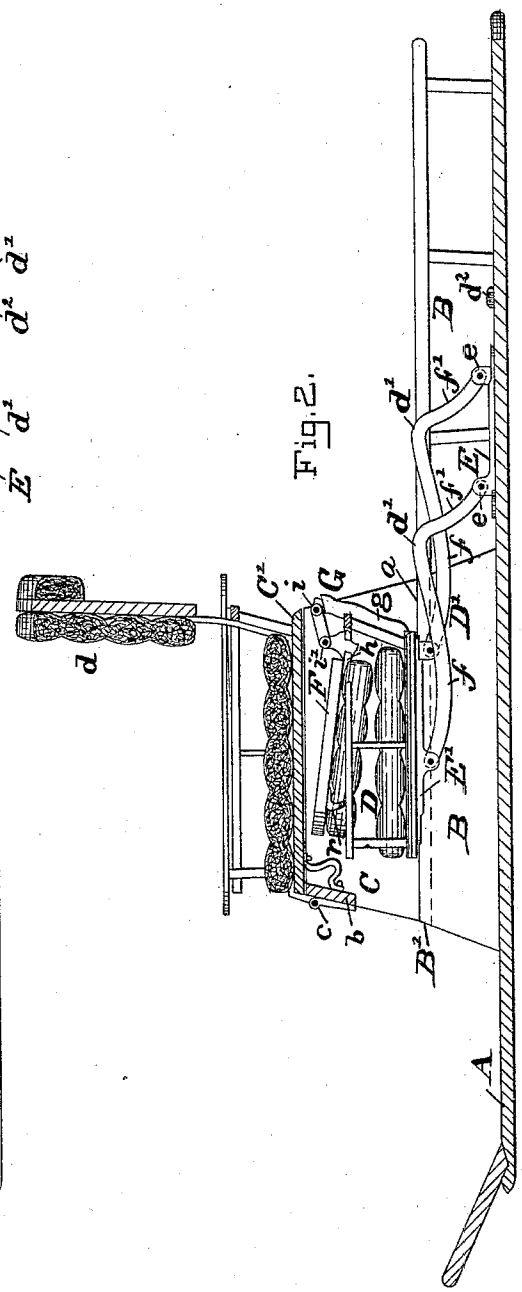


Fig. 2.



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Fig. 3.

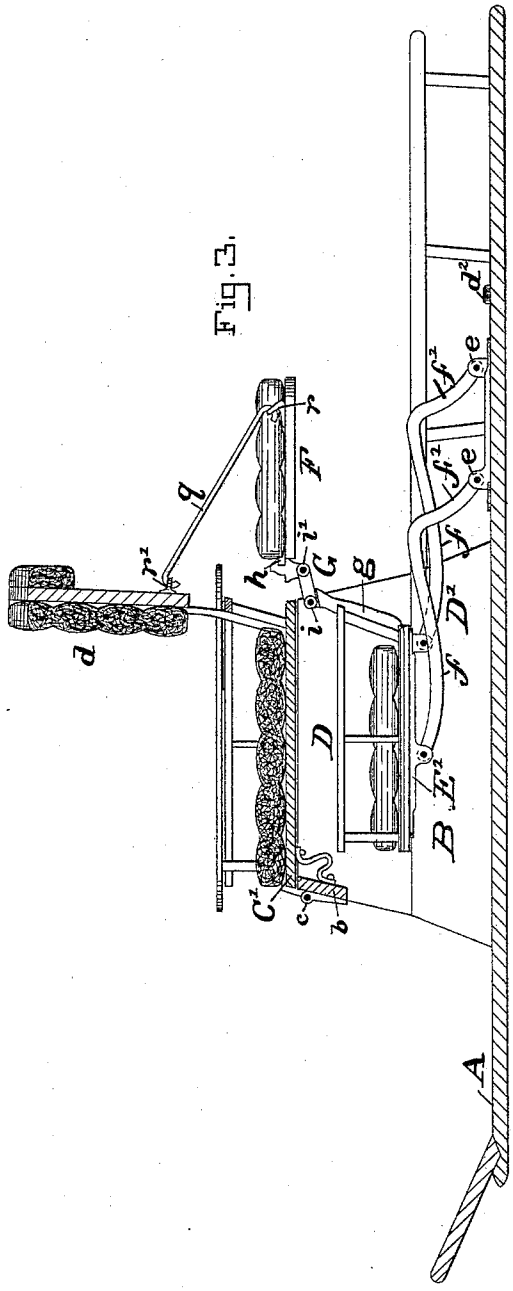
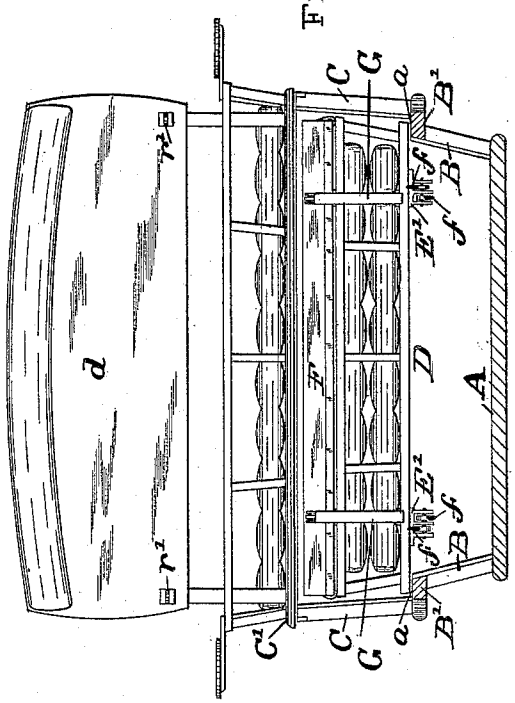


Fig. 4.



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CONVERTIBLE VEHICLE.

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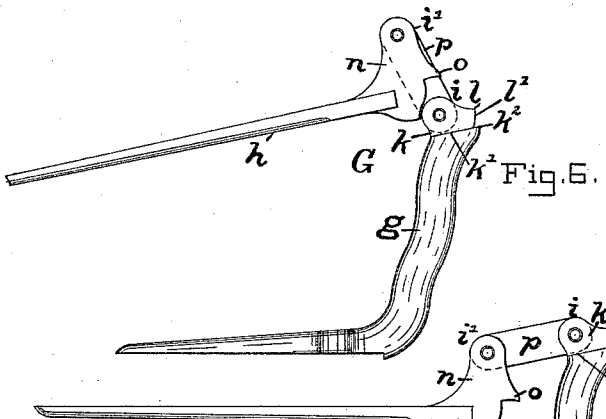


Fig. 6.

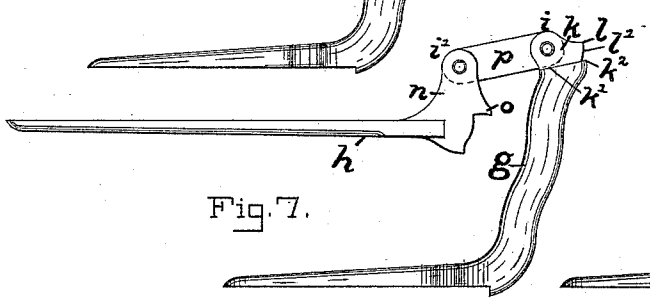


Fig. 7.

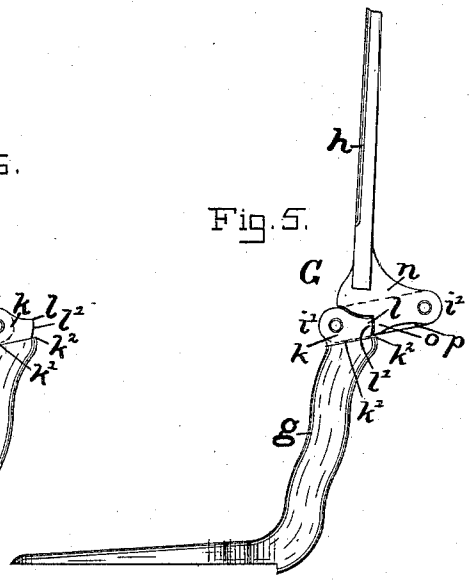


Fig. 5.

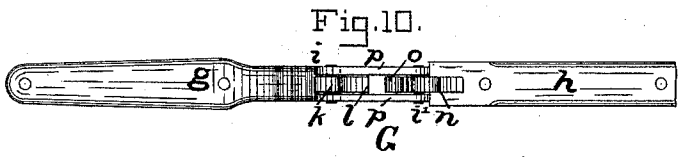


Fig. 10.

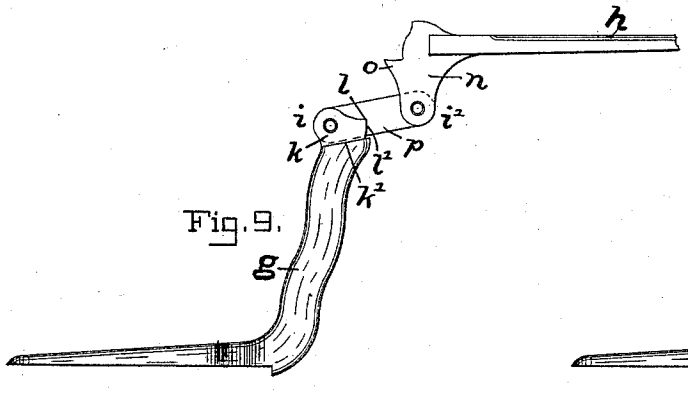


Fig. 9.

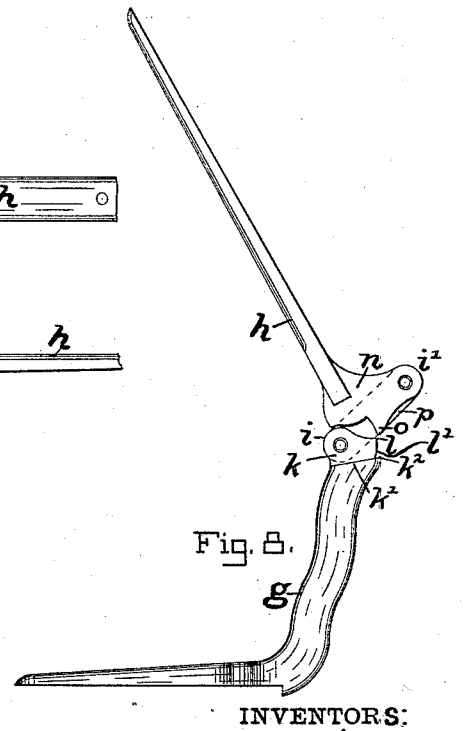


Fig. 8.

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UNITED STATES PATENT OFFICE.

GEORGE H. HUTTON AND GEORGE H. HUTTON, JR., OF BALTIMORE, MARYLAND.

CONVERTIBLE VEHICLE.

SPECIFICATION forming part of Letters Patent No. 449,365, dated March 31, 1891.

Application filed December 24, 1890. Serial No. 375,670. (No model.)

To all whom it may concern:

Be it known that we, GEORGE H. HUTTON and GEORGE H. HUTTON, Jr., citizens of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Convertible Vehicles, of which the following is a specification.

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 in view is to produce a more simple, cheap, and convenient arrangement wherein the number of parts are reduced.

With this end in view the invention consists in the peculiarities of construction and combinations of parts which will be described hereinafter, and pointed out in the claims.

In the accompanying drawings, illustrating the invention, Figure 1 represents a side view of the vehicle-body as an ordinary two-seated carriage; Fig. 2, a longitudinal vertical section of the vehicle-body as a one-seated carriage; Fig. 3, a similar view showing it as a dos-a-dos; Fig. 4, a vertical cross-section of the body directly behind the front seat with the parts adjusted as shown in Fig. 2; and Figs. 5, 6, 7, 8, 9, and 10 detail views illustrating the various positions and movements of the jointed irons supporting the lazy-back of the jump-seat.

The body of the vehicle comprises the bottom A, which is narrow to allow room for the front wheels in turning, and the sides B, which spread or incline outward. The forward part of these sides have at the top a horizontal outward-projecting board or plate B′, upon which rest the vertical standards or seat-supports C of the front seat. By this construction an inside shoulder *a* is formed at each side below the front seat. These shoulders serve to support the rear seat when the latter is turned forward under the front seat, as seen in Figs. 2 and 4, and this construction provides a wide space between the two vertical standards C to receive the rear seat, and thereby a rear seat of greater length can be accommodated.

The front seat C′ is supported upon the standards C, and is secured to a front cross-bar *b*, which connects the standards by hinges *c*, so that the seat may be raised and tilted forward, as indicated in Fig. 1, to allow the rear seat to take position underneath it or to be removed from below it. This front seat is provided with a rigid back *d*.

The rear seat D is a "jump-seat" supported on four pivotal legs D′ of equal length and pivoted at their lower ends to base-plates E, secured to the bottom A, said plates being provided with front and rear joint-ears *e*, located out of alignment with each other, whereby the two legs at each side may overlap or take position side by side when the rear seat is turned forward under the front seat. The upper ends of said legs are pivoted in similar manner to plates E′, secured to the seat, and of similar form to those secured to the bottom A. Each of the supporting-legs comprises an upright long arm *f*, having a slight forward curve and inclining to the rear, a short base portion *f*′, which lies along the body-bottom, and a stop-bend *d*′ between the long arm and base portion. When the jump-seat occupies its rear position, it will be a sufficient distance from the front seat to allow ample room between the two seats. When in this rear position, the bends *d*′ of the forward legs seat upon the base-plates E and the bends of the rear legs upon small plates d^2, secured to the body-bottom back of said plates E. These stop-bends sustain the long arms in their upright position.

It will be apparent that the rear seat D always preserves a horizontal position, as it has been stated that the legs are all equal in length and parallel and of the same form.

The lazy-back F of the jump-seat D is supported by a pair of irons G, which are double jointed and are capable of supporting the back F in the upright position shown in Fig. 1, in the turned-forward position shown in Fig. 2, and in the turned-backward position shown in Fig. 3. Each iron G comprises two sections *g h*. One of these sections *g* is for attachment to the seat D, and from the back edge thereof projects up and forms a rigid standard, and may incline slightly to the rear, as shown. The other section *h* is for attach-

ment to the back F, and in securing it to the first-named section two joints are employed. When the back is turned forward, one joint i is brought into play, and when it is turned backward the other joint i' is brought into play.

In the present instance the iron G has its two joints constructed as follows: The seat-section or standard g has at its upper end a joint-ear k and a stop-shoulder k' at two opposite sides, and also a stop-shoulder k^2 at the rear side. The forward part of this joint-ear is rounded, but the rearward part projects toward the rear stop-shoulder k^2, and has an upper angular corner l and a rear face l', that is curved concentric with the pivot i. The back section h has at its lower end a rearward-projecting joint-arm n of the same thickness as the joint-ear k on the other section. This joint-arm has a hook or beak o of shape to correspond with the rear face l' of the joint-ear k on the other section, and the edge n' of the joint-arm, which is proximate to the top edge of the said joint-ear, has a suitable shape to correspond therewith. A short link-bar p laps across the side of the joint-ear k and the side of the joint-arm n, and the pivot-pin, which forms the joint i, passes through the said link-bar and the joint-ear k, and the pin of the joint i' passes through the link-bar and the joint-arm n. We prefer to employ two link-bars p, one at each side, as shown in Fig. 10. When the back-section h is in an upright position, as in Figs. 1 and 5, the joint-arm edge n' rests in contact with the top edge of the joint-ear k, and its hook or beak o is in contact with the rear face l'. When the parts are in this position, it will be seen that the back section h cannot turn backward nor have any movement on its rear joint i'. Thus this construction of parts serves to hold the two joints rigid when the back-section is in an upright position. The hook or beak o, however, does not hinder the back-section h from turning on the front joint i, as shown in Figs. 8 and 6.

To adjust the back in the ordinary turned-forward position, it is only necessary to turn the lazy-back F on the front pivots i of the irons. The position which the two joints of the irons G will then have is shown in Fig. 6. To adjust the seats as for a one-seated carriage, (see Fig. 3,) first turn forward the lazy-back F on the front pivots i until the hooks or beaks o of the joint-arms n have passed the angular corners l of the joint-ears k. Then the lazy-back may be pushed down and forward to draw the joint-arms n from between the links p, and thus bring into play the rear pivots i' until the links p reach the limit of their forward movement by resting on the stop-shoulders k', as shown in Figs. 2 and 7. It will be observed that the particular advantage of the links p is to bring the lazy-back F to the lowest position it can occupy, enabling it to take position under an ordinary low front seat. After the back F has been thus folded down the rear seat is lifted and jumped forward beneath the front seat and between the side standards C of the same, where it rests upon the inside shoulders a, the front seat having first been tilted forward on its hinges to permit the rear seat to take position below. The advantage of the lazy-back irons g h, having the link-bar connection, is that the lazy-back may be turned forward to a lower position than would otherwise be possible and still be high enough when turned rearward. To convert the one-seated vehicle into a dos-a dos, again tilt forward the front seat C' upon its hinges and lift out the lazy-back F of the jump-seat on its pivots i i' and throw the said lazy-back to a turned-backward position until the links p reach the limit of their movement and rest on the stop-shoulders k', as seen in Figs. 3 and 9. It will be seen that the joint-arms n of the back-sections h serve to elevate the lazy-back and bring it on a level with the front seat C', where it will serve as a seat with the rigid back d of the front seat serving also as its back. The lazy-back, now a seat, is held in a horizontal position by two rods q, one at each end, which are hooked into ears r r' on the said lazy-back and upon the back of the front seat, respectively. These rods also now serve as side rails for the back seat. It will of course be evident that other means besides the rods may be employed for holding this lazy-back seat in a horizontal position. Of course the lazy-back can be turned backward and the seat jumped forward and the front seat let down over it without first folding forward the lazy-back, as before described. In restoring the lazy-back to the upright position for a two-seated carriage it will first be turned forward on the front pivots i until the links p assume an approximately vertical position, and then the rear pivots i' will be brought into play and the lower edge of the lazy-back pushed backward until the joint-arms n enter between the links p and their edges n' seat upon the rounded joint-ears k. Then the lazy-back will be again turned on its front pivots i to an upright position until the links p are stopped by the shoulders k'.

It is evident that a number of changes might be made in the construction and arrangement of the several parts composing our invention, and therefore the invention is not limited to the precise construction shown.

The body here shown is that suited for an ordinary four-wheeled vehicle; but the invention may be used and applied to a body for a two-wheeled vehicle.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a vehicle, the combination of a front seat resting on a stationary support, but movable therefrom, a jump-seat mounted on pivotal legs behind said front seat and adapted to be jumped forward beneath the latter and

maintain its horizontal position, and a lazy-back jointed to said jump-seat and adapted to be turned rearward to a horizontal position, where it constitutes a seat.

2. In a vehicle, the combination of a front seat resting on a stationary support, but movable therefrom, a jump-seat mounted on pivotal legs behind said front seat and adapted to be jumped forward beneath the latter, and a lazy-back secured to said jump-seat by double-jointed irons and adapted to be turned forward upon the seat, and also turned rearward to a horizontal position behind the front seat to constitute a seat with its back to the said front seat.

3. In a vehicle, the combination of a front seat C′, resting on a stationary support C, but movable therefrom, four parallel legs of equal length pivoted to the body-bottom behind said front seat, and a rear seat pivotally mounted on said four legs, each of which comprises an upright long arm *f*, a short base portion *f′*, and a stop bend *d′* between the said long arm and the base portion.

4. In a vehicle, the combination of a body having outwardly-inclined sides, each provided with outward-projecting top plates B′, seat-standards C′, rising from said projecting top plates and leaving thereon inside shoulders *a*, a front seat resting on said standards and movable therefrom, and a rear jump-seat adapted to be jumped forward between the said standards and rest upon the said inside shoulders, as set forth.

5. A double-jointed iron for the lazy-backs of vehicle-seats, comprising a standard-iron rigidly secured to the seat, a back-iron secured to the lazy-back, and a link-bar connecting the two irons, whereby the lazy-back may be turned forward and backward, as set forth.

6. A double-jointed iron for the lazy-backs of vehicle-seats, comprising a standard-iron rigidly secured to the seat and having at its upper end a joint-ear and stop-shoulders, a back-iron secured to the lazy-back and having a rigid joint-arm, and link-bars and two pivots *i i′*, connecting the seat-iron, joint-ear, and the back-iron joint-arm, for the purpose set forth.

7. A double-jointed iron for the lazy-backs of vehicle-seats, comprising a standard-iron *g*, rigidly secured to the seat and having at its upper end a joint-ear *k*, with a front rounded part and provided with a rear projecting angular corner *l*, an iron *h*, secured to the lazy-back and having a rearward-projecting joint-arm *n*, provided with a hook or beak *o* to engage said angular corner, and a link-bar connecting the said two irons by pivots in the manner and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE H. HUTTON.
GEORGE H. HUTTON, JR.

Witnesses:
JNO. T. MADDOX,
F. P. DAVIS.