(No Model.)

H. P. WELLS & J. SPOFFORD, Jr.

VEHICLE SEAT.

No. 411,080. Patented Sept. 17, 1889.

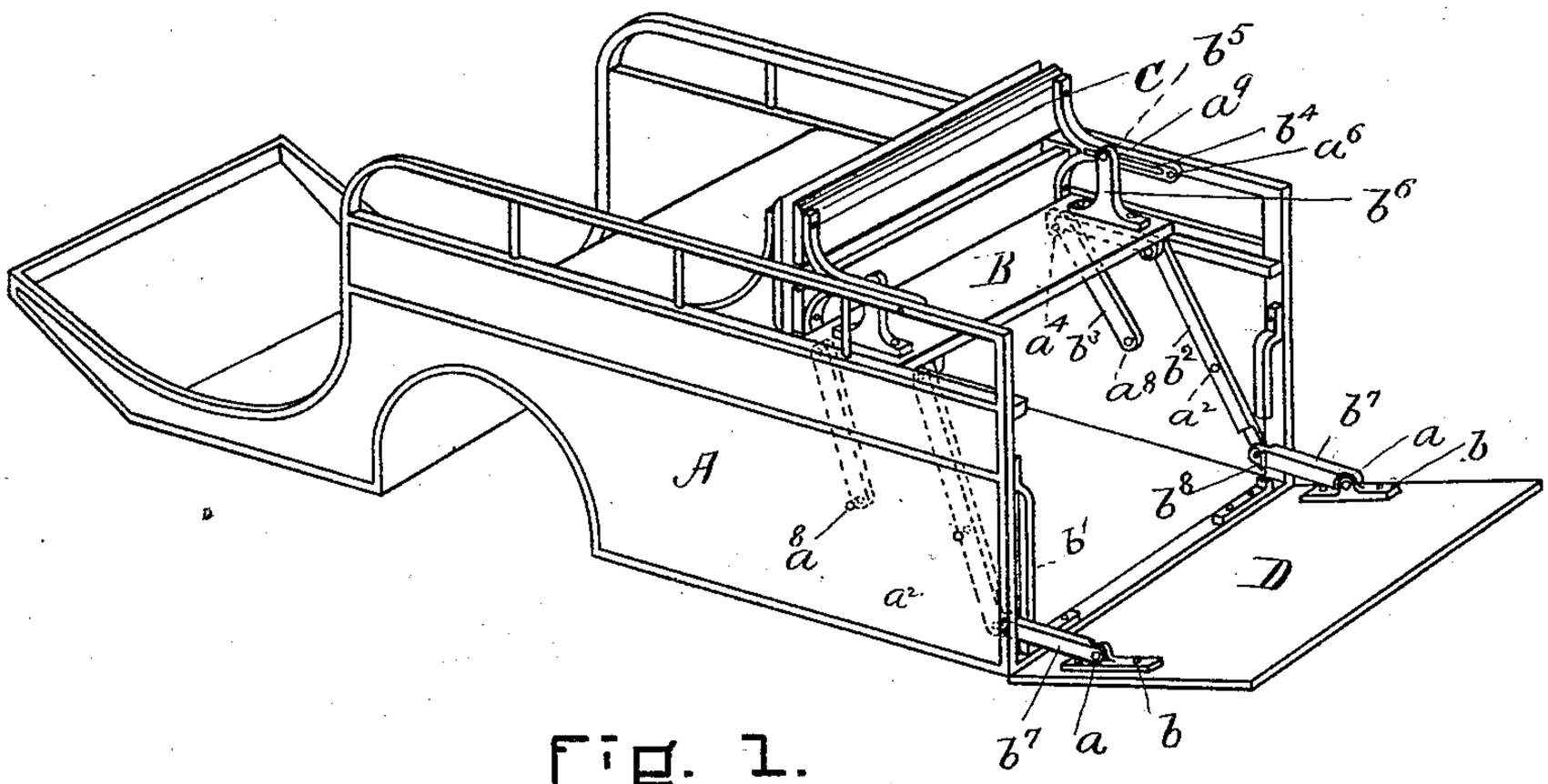

Fig. 1.

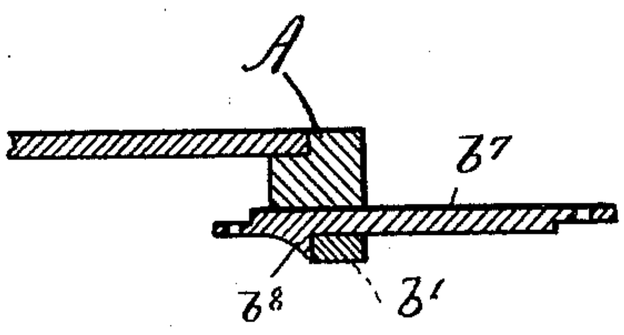

Fig. 2.

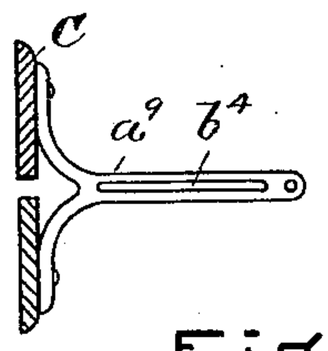

Fig. 3.

WITNESSES.

George Wendell
Wm Deschamps

INVENTOR.

Harlan Page Wells
Jason Spofford Jr

UNITED STATES PATENT OFFICE.

HARLAN PAGE WELLS AND JASON SPOFFORD, JR., OF AMESBURY, MASSACHUSETTS.

VEHICLE-SEAT.

SPECIFICATION forming part of Letters Patent No. 411,080, dated September 17, 1889.

Application filed March 5, 1889. Serial No. 302,034. (No model.)

To all whom it may concern:

Be it known that we, HARLAN PAGE WELLS and JASON SPOFFORD, Jr., residents of Amesbury, county of Essex, Massachusetts, have invented certain new and useful Improvements in Vehicles, of which the following, taken in connection with the accompanying drawings, is a specification.

Our 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 our 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. We attain this object in the manner herein described by the mechanical devices illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the body in perspective, showing the arrangement of the devices and parts of our reversible seat. Fig. 2 is a section for reference, and Fig. 3 is an end view in section of the lazy-back.

Similar letters refer to similar parts throughout the several views.

The construction is as follows: The body A is made in the usual manner, except that its rear end D is secured by hinges to the bottom surface of the frame, and can be raised or lowered in the same manner as the tail-board of an ordinary wagon. The reversible seat B is secured to the inner side surface of the body A by two braces b^3, the top ends of which are secured by pivot-joints to its under surface, as shown at a^4, and their lower ends to the inner side surface of the body A, in conjunction with two levers b^2, the top ends of which are secured to the seat B in the same manner as the braces b^3, and at the required distance downward are also pivoted to the inner side surface of the body A by the pivot-bolts a^2, their extreme lower ends being pivoted to the inner ends of the connecting-bars b^7, the outer ends of which are pivoted, as shown at a, to the brackets b, which are secured to the inner surface of the rear end D of the body A.

The arms of the lazy-back C are made in the form of a double quarter-circle, the inner ends of which terminate in a central straight shank a^9, in which is a central longitudinal slot b^4, (see Fig. 3,) and at its extreme end a hole for the reception of a pivot-bolt a^6, by means of which it is secured to the top side rail of the body A in such a manner that it can be made to vibrate back and forth.

At the extreme end on the upper surface of the seat B are secured the brackets b^6, which terminate in upwardly-projecting points, in each of which is secured a round stud b^5, of such proportion that it will pass through and play freely in the slot b^4 in the shank a^9 of the arm of the lazy-back C.

In practice, the seat B being in its proper position and the end D closed, to reverse said position the end D is lowered, thus drawing the connecting-bar b^7 outward, which, acting on the lever b^2, sends the seat B forward, its upper surface describing an arc of a circle of which the pivots a^2 are the centers, and as the seat B is raised the lazy-back C, by the action of the studs b^5 in the slots b^4 of the shanks a^9, is lifted from its position, and by its forward motion is sent to the opposite side of said seat, describing in its passage a full half-circle of which the pivot-bolts a^6 are the center, thus reversing the position of the seat, as shown at B and C, by the simple act of lowering the end D, which when the seat B is in this position serves as a foot-board for the occupants thereof. The seat B is brought back to its original position by raising the end D, when the vehicle assumes the appearance of, and in fact is, an ordinary double-seated carriage. The extreme rear upright posts of the side frames of the body A are held firmly in position by angular metallic braces b', which are secured to the rear end sill of the frame and to the rear uprights of the side frame in such a manner that the connecting-bar b^7 can pass through and play freely back and forth between said uprights and angular braces b', (as shown in Fig. 2.) The connecting-bars b^7 are provided on their inner surfaces with a projecting shoulder b^8 of such proportion that when the end D is lowered they will rest against the inner side edges of the angular braces b', as shown at a^8, Fig. 2, and retain it

in the desired position, and when said end is raised it is kept in position by the weight of the occupants of the seat B. When the seat B is in its ordinary position, it rests on the middle rail of the frame at the usual distance from the rear of the body A, and when reversed is sent in a sufficient distance to insure the comfort and safety of its occupants, its backward and forward reach being the motive power required to reverse the position of the seat B.

It will be understood that we do not bind ourselves to the exact arrangement or proportions of the devices herein described, as we know by practical experiments that there are other ways of accomplishing the same results—as, for instance, the hole for the reception of the pivot-bolt a^6 may be placed at the inner end of the slot b^4 in the arm-shank a^9, in which event the stud which passes into said slot would have to be secured in the top side rail of the body A and the pivot-bolt a^6 in the seat-bracket b^6; but we prefer the within-described arrangement of the parts, because it is simple and not easily put out of order, and that by reason of its operating automatically will enable any person to place the seat in either position with certainty and speed by simply lifting or lowering the end D; nor do we claim the seat B as exclusive of shifting, sliding, or folding seats, but simply as new and improved, inasmuch as it is operated automatically; nor the lazy-back C as exclusive of lazy-backs, but simply as improved in such a manner that it can be automatically reversed from side to side of the seat B as and when the needs of the moment may require, the principle involved in this invention being the automatic shifting of the seat B by such a motion as will lift and turn over the said lazy-back during the outward or inward reach of said seat.

What we claim as new, and desire to secure by Letters Patent, is—

1. The within-described automatically-reversible seat, which consists of the seat B, having the braces b^3, levers b^2, and brackets b^6, and the lazy-back C, having the arm-shanks a^9, with the slots b^4 and holes for the reception of the pivot-bolts a^6, in combination with the pivot-bolts a^2 a^4 a^6, connecting-bars b^7, having the shoulders b^8, metallic braces b', brackets b, and hinged rear end D, constructed and arranged substantially as described, for the purposes set forth.

2. In a seat for vehicles of the class herein named, the automatically-reversible lazy-back C, with the arm-shanks a^9, having the slots b^4 and the hole for the reception of the pivot-bolts a^6, in combination with said pivot-bolt a^6, secured in the body A, and the brackets b^4 of the seat B, substantially as described and set forth.

HARLAN PAGE WELLS.
JASON SPOFFORD, JR.

Witnesses:
GEORGE WENDELL,
WILLM. DUCHEMIN.