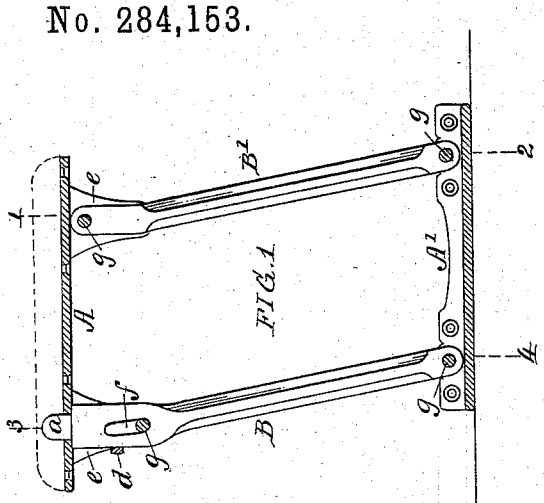
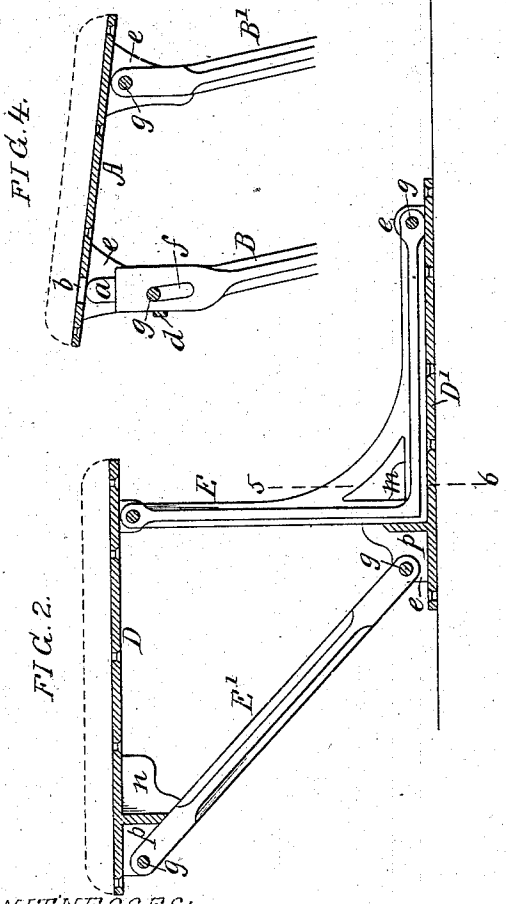
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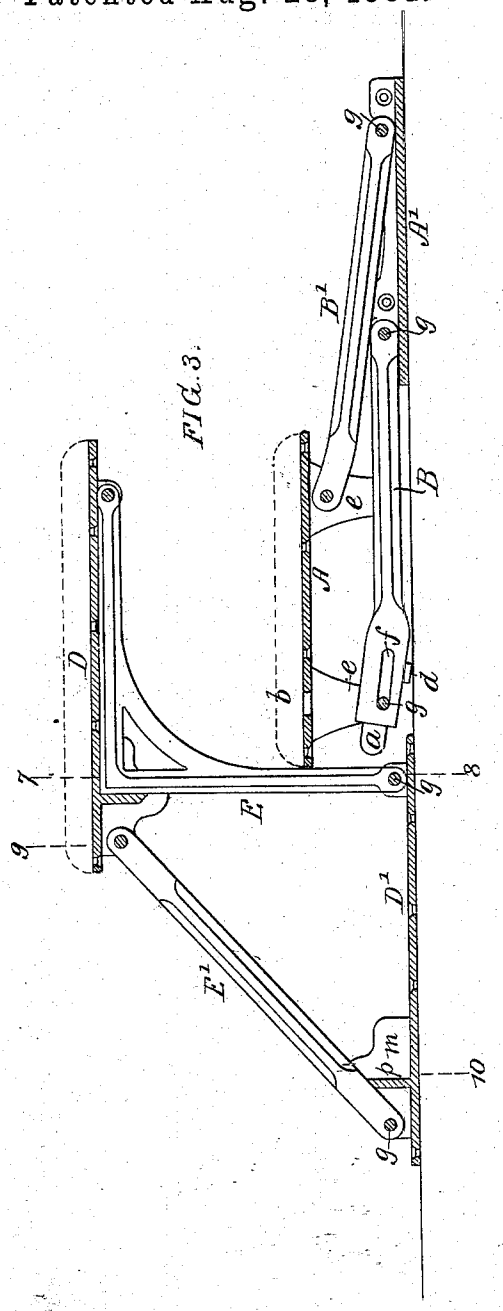
H. A. WILLITS.

JUMP SEAT IRON.

No. 284,153. Patented Aug. 28, 1883.







WITNESSES:
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Hamilton D. Turner

INVENTOR:
Horace A. Willits
by his Attorneys.
Howson & Sons

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

(No Model.) 2 Sheets—Sheet 2.

H. A. WILLITS.

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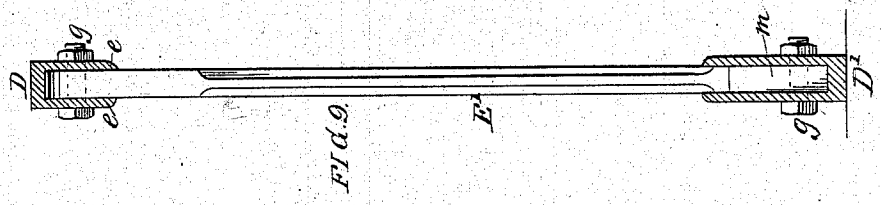


FIG. 9.

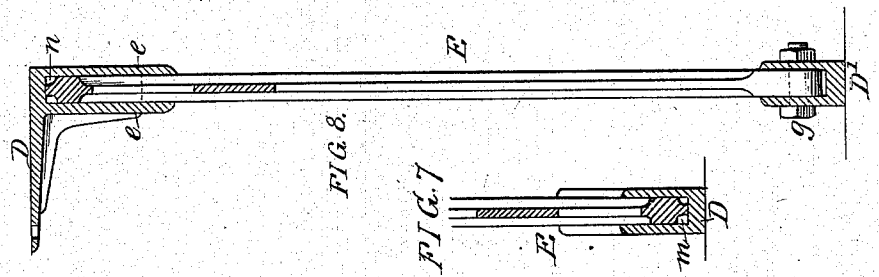


FIG. 8.

FIG. 7.

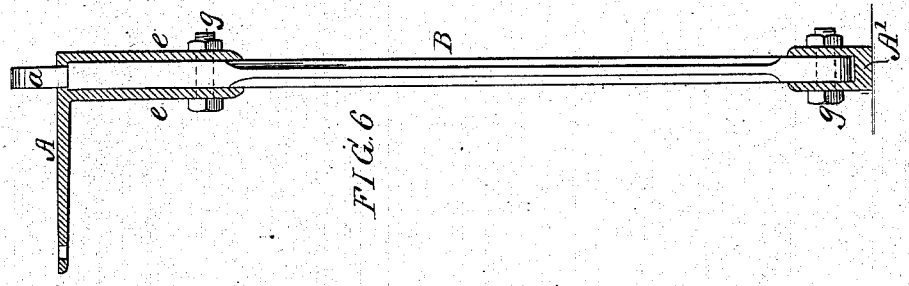


FIG. 6.

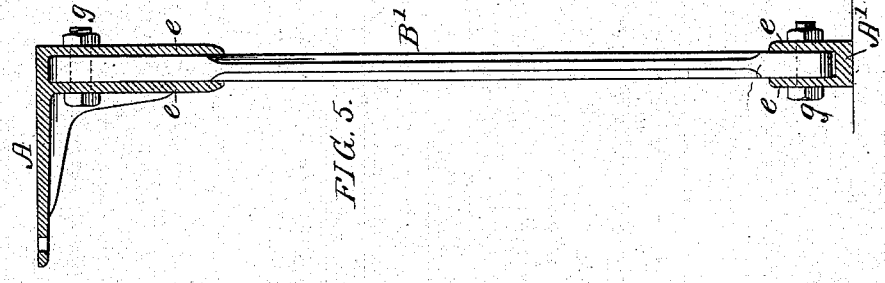


FIG. 5.

Witnesses:
David Williams
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UNITED STATES PATENT OFFICE.

HORACE A. WILLITS, OF PHILADELPHIA, PENNSYLVANIA.

JUMP-SEAT IRON.

SPECIFICATION forming part of Letters Patent No. 284,153, dated August 28, 1883.

Application filed May 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, HORACE A. WILLITS, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Jump-Seat Irons, of which the following is a specification.

One object of my invention is to provide a ready means of locking and unlocking the front-seat irons, and a further object is to provide strong and well-braced supports for the rear seat.

In the accompanying drawings, Figure 1, Sheet 1, is a side view, partly in section, of a set of irons intended for the front seat; and Fig. 2, a similar view of a set of irons for the back seat, the irons being in the positions to which they are adjusted when both seats are to be used. Fig. 3 is a side view, partly in section, showing the adjustment when but one seat is to be used. Fig. 4 is a detached view, showing the method of unlocking the front seat; and Figs. 5, 6, 7, 8, and 9, Sheet 2, are transverse sections, respectively, on the lines 1 2, 3 4, 5 6, 7 8, and 9 10, Figs. 1, 2, and 3, and on a larger scale than said figures.

A is the top bar, and A′ the bottom bar, of the front-seat iron, these bars being connected together by links B B′, pivoted to both bars.

The rear-seat iron comprises the top and bottom bars, D D′, connected together by a link, E′, and an angular frame, E.

When the front seat is elevated, the parts are in the position shown in Fig. 1, a tongue, *a*, on the link B entering an opening, *b*, in the bar A, and locking said bar and link together, so as to prevent any movement of the bar or links in either direction.

The link B has a slot, *f*, for the reception of the pivot-bolt *g*, so that the rear end of the bar A can be elevated, as shown in Fig. 4, in order to free the tongue *a* from the opening *b* when it is desired to depress the seat, the parts being free to move in either direction when the bar A is thus unlocked.

The bolt *g* may be secured to the link and adapted to slots in the ears *e*, if desired; or the tongue and slot may be formed at the lower end of the link B and the opening *b* made in the lower bar, A′, the construction shown, however, being preferred.

I am aware that jump-seat irons have been devised in which both links are slotted at the lower ends to receive the pivot-pins, and are provided with lugs adapted to recesses in the bottom bar; but in this case the seat, and with it both links at each end, must be lifted bodily in order to effect the locking or unlocking of the irons. In my structure, on the contrary, the link B′ is connected to the bars A A′ by fixed pivots, so that the simple elevation of the rear edge of the seat is all that is necessary in order to unlock the same, the device being self-locking when the seat is drawn forward and upward. The same result has been attained by pivoting an additional locking-bar to the top bar, A; but it is one of the objects of my invention to avoid the use of such additional bars, and to construct each iron with but four parts—the top and bottom bars and the connecting-links.

A lug, *d*, on the link B bears upon the ears *e* of the bar A when the seat is thrown to the front, and serves to support the rear end of the bar and maintain the pivot-bolt *g* in the upper end of the slot *f*, so that the tongue *a* will automatically enter the opening *b* when the seat is moved back to the position shown in Fig. 1.

The opposite ends of the link E′ and angular frame E are pivoted to ears *e* on the top and bottom bars, D D′, of the back-seat iron by means of pins or bolts *g*. When the seat is thrown back, the angle or corner of the frame E rests in a socket, *m*, on the lower bar, D′, as shown in Figs. 2 and 7, and is thereby braced and prevented from twisting laterally, and when the seat is thrown forward, as shown in Fig. 3, the corner of the frame is adapted to a similar socket, *n*, on the upper bar, D, as shown in Fig. 8.

A bar, *p*, forms the back of the socket *m*, this bar having a beveled upper end, which supports the link E′ when the seat is thrown forward, as shown in Fig. 3, and a similar bar, *p*, forming the back of the socket *n* of the upper bar, D, rests upon the link E′ when the seat is thrown back, as shown in Fig. 2.

The ears *e*, which carry the pivot-pins for the links B, B′ and E′, serve to prevent lateral twisting of said links in the same manner as the sockets *m* and *n* perform this duty in connection with the frame E.

I claim as my invention—

1. The combination of the top and bottom

bars, A A′, with the links B and B′ pivoted thereto, the pivots of the link B′ being fixed, but the link B having a slotted connection with one of the bars A A′, and adapted to be locked thereto by the engagement of a tongue, *a*, and opening *b*, as set forth.

2. The combination of the top and bottom bars, A A′, the former having pivot-ears *e* and an opening, *b*, with the links B B′, pivoted to said bars, said link B having at the upper end a slot, *f*, for the pivot-pin, a tongue, *a*, adapted to the opening *b*, and a lug, *d*, for acting on the ears *e*, as set forth.

3. The combination of the angular frame E and link E′ with the top and bottom bars, D D′, to which they are pivoted, said bars having sockets *m* and *n*, for the reception of the corner of the frame, and said sockets having back bars, *p*, which form bearings for the link E′, as set forth.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HORACE A. WILLITS.

Witnesses:
HARRY L. ASHENFELTER,
HARRY SMITH.