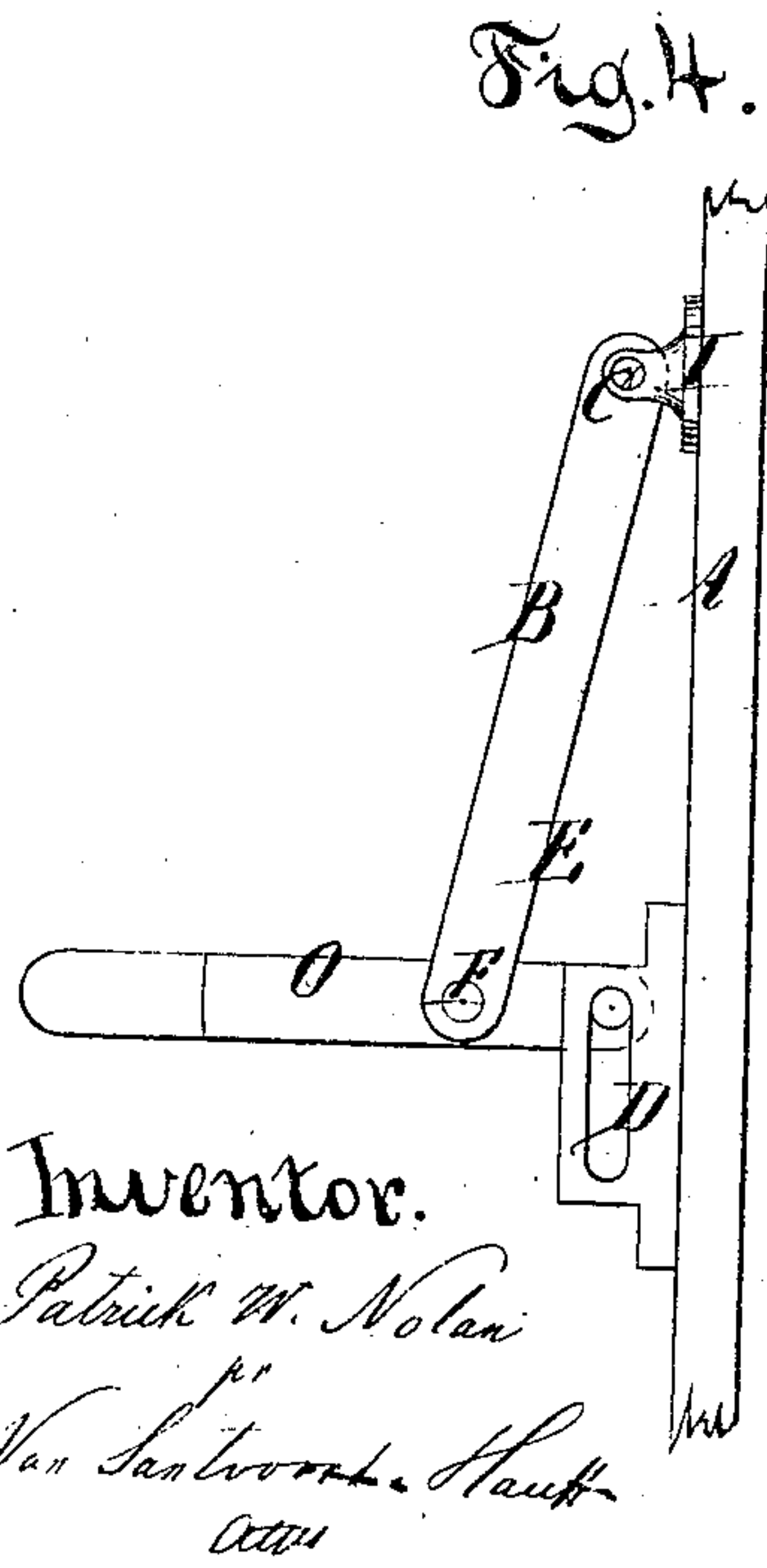
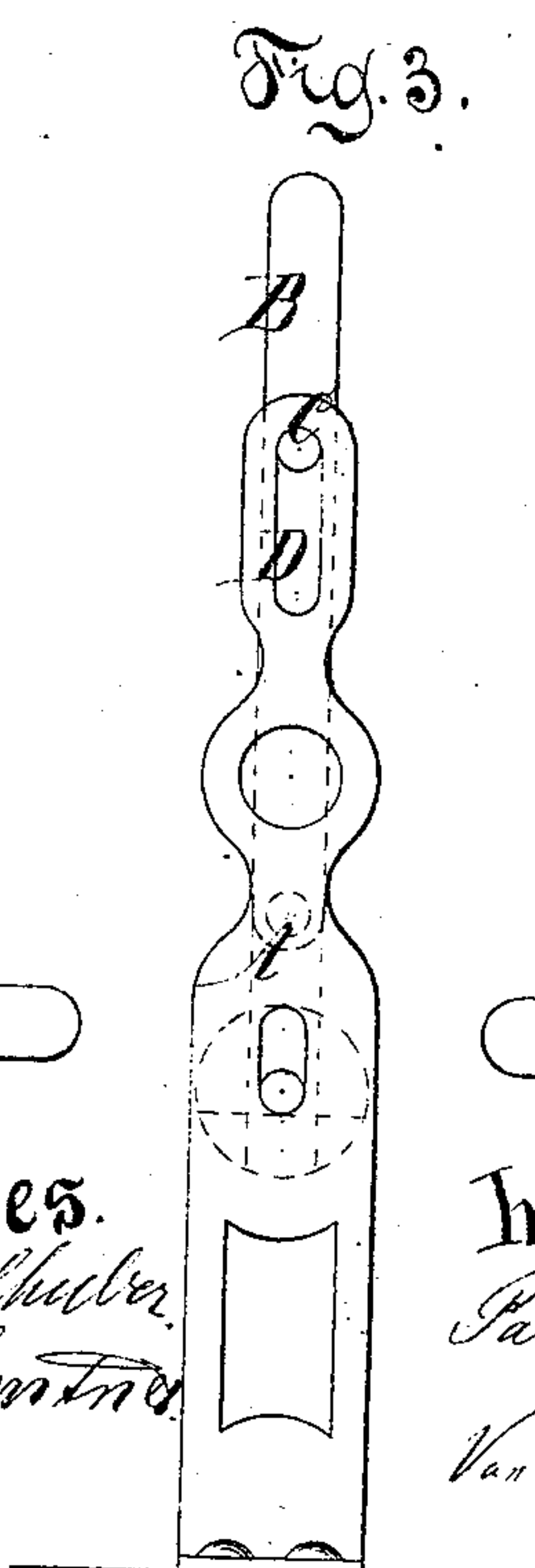
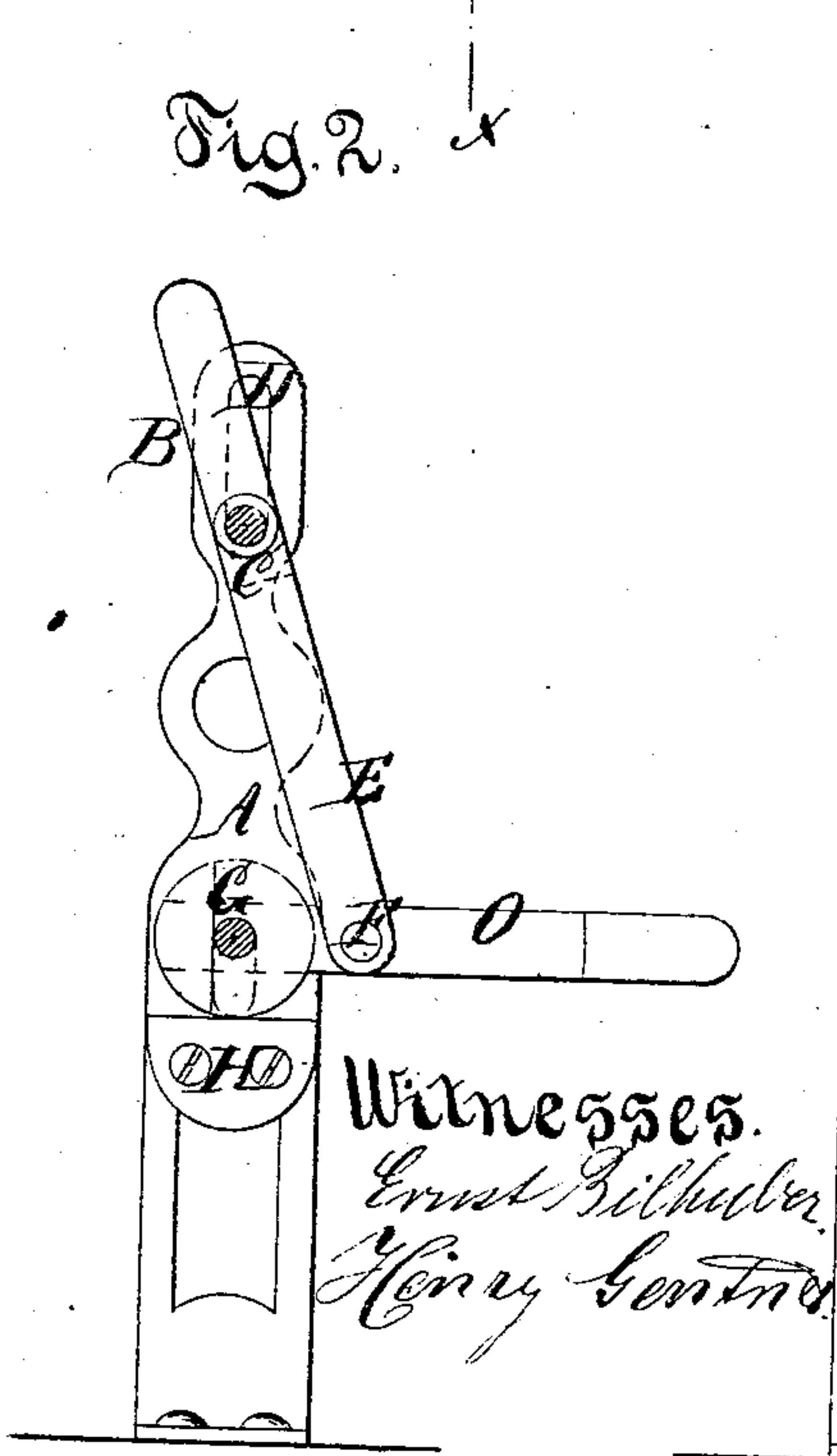
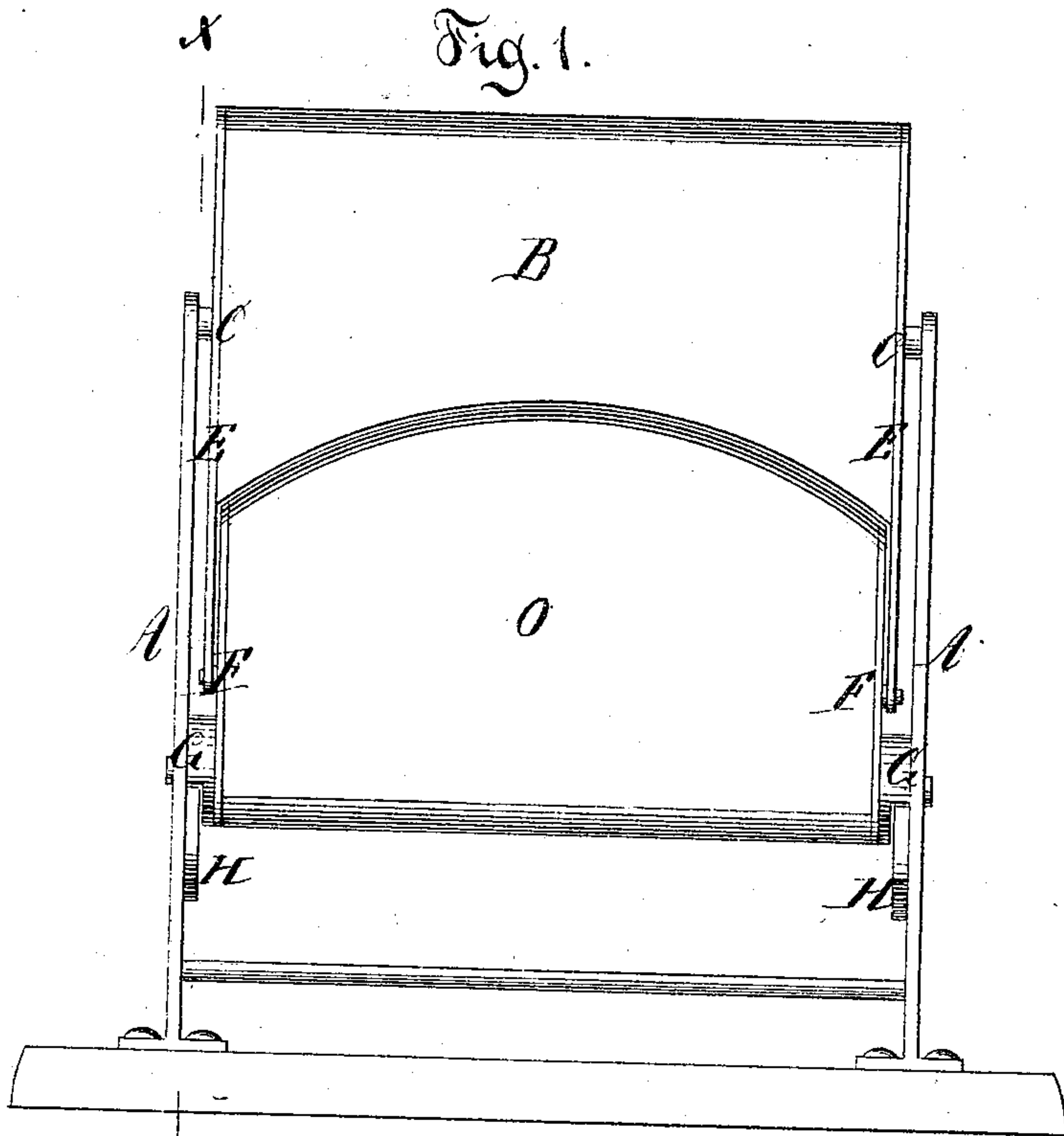


P. W. NOLAN.
Car-Seats.

No. 145,229.

Patented Dec. 2, 1873.



UNITED STATES PATENT OFFICE.

PATRICK W. NOLAN, OF NEW YORK, N. Y.

IMPROVEMENT IN CAR-SEATS.

Specification forming part of Letters Patent No. **145,229**, dated December 2, 1873; application filed October 30, 1873.

To all whom it may concern:

Be it known that I, PATRICK W. NOLAN, of the city, county, and State of New York, have invented a new and Improved Folding Reversible Car-Seat; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is a front view of my improvement folded up. Fig. 2 is a section taken in the line *xx* of Fig. 1, the seat being down ready for use. Fig. 3 is an end view of the same folded up. Fig. 4 is a modification.

Similar letters indicate corresponding parts.

The object of this invention is to provide a chair which will occupy the least possible space when folded, and which, when unfolded, possesses the necessary functions to be of ease and comfort to the occupant. My invention consists in a peculiar arrangement and combination of seat and back with a stationary frame, in such a manner that the seat can be folded under and within the back, and swung through or past the back to the opposite side, so as to be used on opposite sides of the back, at pleasure, whereby the seat is not only reversed in position with reference to the sides of the back, but is reversed in respect to the surface which is brought uppermost, according as its position is changed to one side or the other of the back.

The letters A A designate two standards, to which the back and seat are connected, and between which they swing in taking their several positions, as herein described. The back B is connected, at or near its upper or higher part, to the standards by means of studs C projecting from its end, and which studs, in the example shown in Figs. 1, 2, and 3, move in slots or guides D formed in the standards. These slots enable the back to have a vertical or upward movement, to allow the seat O to be reversed or to be swung in or under the back. From the ends of the back project straps E, which extend downward to the seat, to which they are pivoted at F a little forward of the inner edge of the seat. The seat is connected, like the back, to the standards by means of studs C, projecting from its ends at

or near its inner edge, which studs enter other slots or guides D, similar to those that receive the studs of the back. The slots or guides D are placed in such positions, and are of such length, as will allow the required movements of the back and seat, to allow them to pass each other and take the reversed positions, when desired, the back and seat being made of such width as will permit the seat to pass under the back when they are brought into line with each other or folded up, as shown in Figs. 1 and 3.

In order to aid the seat and back in retaining the folded position, I form bosses G on a level with the under side of the studs D, and make the under side of the bosses square, as shown in the drawing, so as to rest upon square seats H formed on the standards A in suitable positions for that purpose; the surfaces of the bosses and seats in contact with each other being of such an extent that the center of gravity of the seat as well as of the back intersects them, and, consequently, the seat will not be likely to fall accidentally, but will remain in its elevated or folded position until pulled down by design.

It is obvious that, instead of having the connections of both the back and the seat move in slots, as at C D, the connections either of the back or of the seats with the standards may be stationary, and vertical motion be allowed only to one of them—that is to say, to either the back or the seat. This modification is shown in Fig. 4, where the studs C of the back are arranged at its top, and turn in bearings I provided in the standard or support A, the arrangement being like ordinary pivots where the parts turn on each other; the connections of the seats with the standard or support being substantially the same as in the other figures, only the guide-slot D is made longer, because the vertical motion, which before was divided between the back and seat, is here confined to the seat.

It is obvious that the vertical motion can be confined to the back, if desired, and the seat be allowed only to turn on its studs or pivots.

In Fig. 4 my improvement is represented as connected to a wall, A, instead of being connected to standards, within which the seat and back swing and turn, as shown in the other

figures. The arrangement in Fig. 4 permits the seats to be folded up into or under the back; but they cannot be reversed, because the support A, to which they are hung, is solid instead of being open, as in Fig. 1.

My invention is applicable in street-railroad cars, and other places where reversible seats are desired to correspond to changes in the direction of motion, the arrangement shown in Fig. 1, where the reversible motion is permitted, being well adapted for being placed across the car, while the arrangement shown in Fig. 4 permits my invention to be used at the ends of the car. Both arrangements provide for the folding of the seat and back, so as to be out of the way when not in use.

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

1. A reversible folding seat, O, to swing under the back B on pivoted side straps E, substantially as described.

2. The standard A, having the elongated slots D, in combination with the back B, stud C, and seat O, substantially as described, for the purpose specified.

3. The square bosses G on the seat O, in combination with seats H on the standards, substantially as and for the purpose described.

PATRICK WILLIAM NOLAN.

Witnesses:

W. HAUFF,
CHAS. WAHLERS.