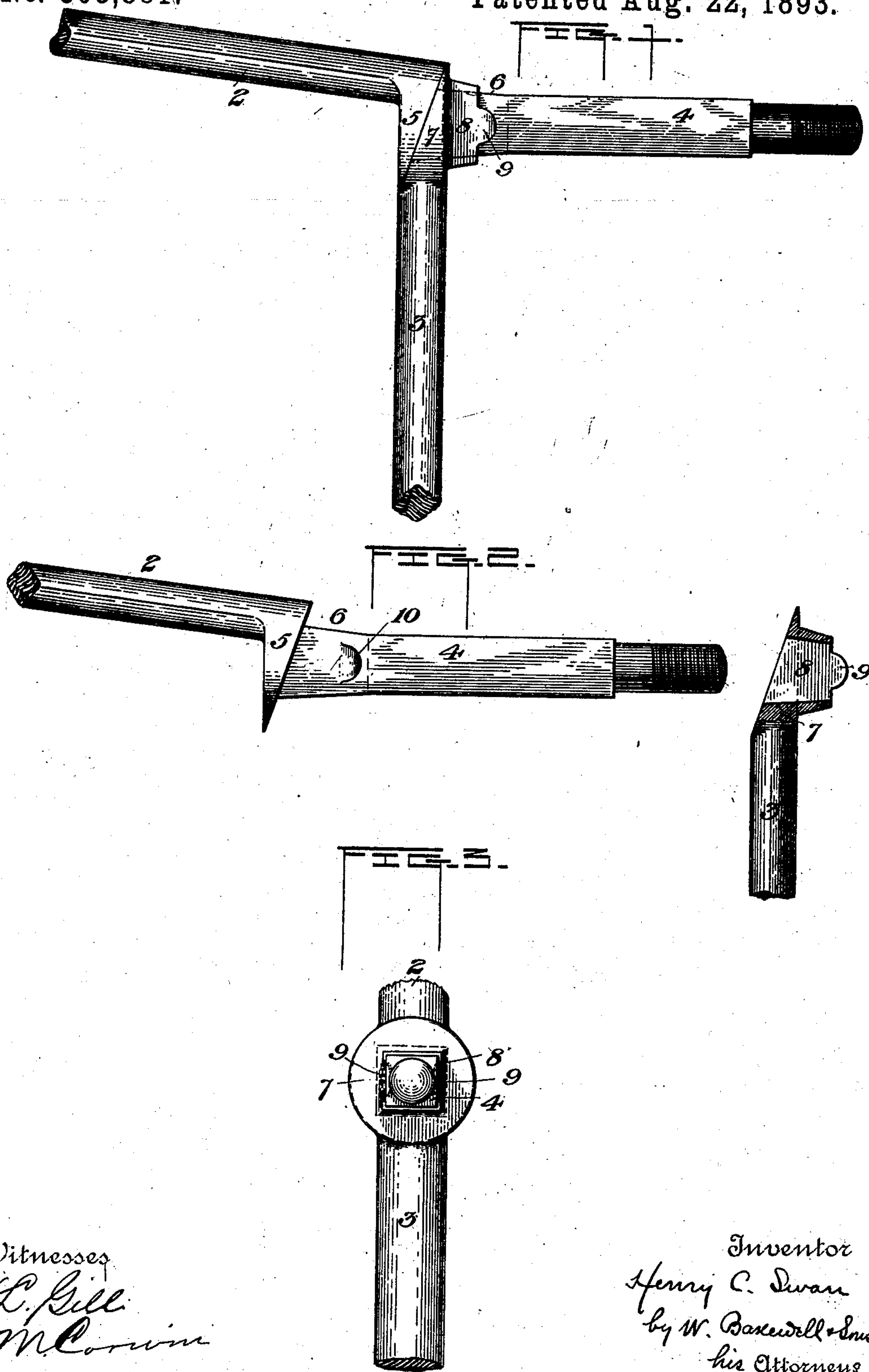


(No Model.)

H. C. SWAN.  
SHIFTING RAIL FOR VEHICLE SEATS.

No. 503,881.

Patented Aug. 22, 1893.



Witnesses  
H. L. Gill  
H. M. Corwin

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# UNITED STATES PATENT OFFICE.

HENRY C. SWAN, OF OSHKOSH, WISCONSIN.

## SHIFTING RAIL FOR VEHICLE-SEATS.

SPECIFICATION forming part of Letters Patent No. 503,881, dated August 22, 1893.

Application filed December 29, 1892. Serial No. 456,679. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. SWAN, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented a new and useful  
5 Improvement in Shifting Rails for Vehicle-Seats, of which the following is a full, clear, and exact description.

Heretofore, no efficient means have been known enabling shifting rails for buggy-seats  
10 to be made of malleable cast-iron in an economical and satisfactory way, and the manufacture of them from wrought iron has been a somewhat tedious and expensive operation.

The object of my invention is to overcome  
15 the difficulties heretofore incident to the manufacture of these articles, and to provide means by which with very little cost I can produce a shifting-rail as light, durable and neat as the rails now ordinarily used, and one  
20 which can be made of malleable cast-iron.

In the accompanying drawings, Figure 1 is a plan view, showing the corner of a shifting-rail,—that portion of the rail of which the prop forms a part, and showing the joint or  
25 splice where the two sections of the rail are connected. Fig. 2 is a plan view of the parts of Fig. 1, showing the parts detached, and illustrating the manner of their connection. Fig. 3 is an end elevation of the parts shown  
30 in Fig. 1.

Like symbols of reference indicate like parts in each of the views.

In the drawings, 2 represents the back-rail or bar, which is set in position parallel with  
35 the back of the seat.

3 is one of the side-rails which extends in a direction parallel with the end of the seat, and 4 is the horizontally-projecting prop. In Fig. 1, I show these parts connected together.  
40 Their manner of attachment to the buggy-seat does not need detailed description, since they may be applied thereto in any convenient manner.

The parts above described are connected  
45 with each other as follows:—The prop-bar 4 projects integrally from a flange 5 at the end of the back-rail 2, and near its juncture with said flange is made tapering or of wedge-shape, as shown at 6. The side-rail 3 has at  
50 its rear end a flange 7, which is the counter-

part of the flange 5, but which has a hole and, preferably, a projecting strengthening socket or cone 8, adapted to fit over the prop 4 and made internally of tapering form so as to be the counterpart of the tapering portion 6 of  
55 the prop.

In fitting the parts together, the flange 7 and socket 8 of the side-rail are placed around the prop and are forced against the back-rail so that the flanges 5 and 7 shall meet. The  
60 tapering shape of the interfitting parts 6, 7 and 8 causes the two rails, when forced together, to be bound as rigidly and firmly as though they were integral. They are also held together by additional means, consisting pref-  
65 erably of a lip 9 on the socket 8 adapted to be forced into a recess 10 on the prop 4.

The rails may be constructed of oval iron in the usual manner, and the prop may be made square and countersunk.  
70

Although I deem it desirable to bevel the meeting faces of the parts 5 and 7, that is not essentially necessary to the invention as defined in the broader claim.

Modifications in the form, construction and  
75 relative arrangement of the parts of the device, within the scope of my invention as herein defined, may be made by those skilled in the art, and although the forms which I have described are specifically claimed, those claims  
80 in which no mention is made of specific forms are unlimited thereto.

As will be seen by referring to the drawings, the appearance of the rail is not impaired by my improvement, for it is common to use  
85 a prop-block resembling very much in appearance and having about the same diameter as the circle shown in Fig. 3. By my invention I am enabled to make a rail in three parts, and can therefore manufacture it more cheaply  
90 and more rapidly than heretofore. I am able also to use cast malleable iron, and to produce thereof a rail having the appearance of a wrought rail, and showing no unsightly  
95 splices or bunches, which have been so objectionable in the cast rails attempted to be produced heretofore.

I claim—

1. The combination of a back-rail having an end projection, and a side-rail having a  
100



lateral hole fitted around said projection, said parts having meeting flanges; and the inter-fitting portions being of tapering or wedge shape substantially as described.

5 2. The combination of a back-rail having an end-projecting prop, a side-rail having a socket fitted over the prop, and a projection on the socket adapted to enter a recess in the prop; substantially as described.

10 3. The combination of a back-rail having

an end projection, and a side-rail having a lateral hole fitted around said projection, said parts having meeting flanges with beveled faces; substantially as described.

In testimony whereof I have hereunto set 15 my hand.

HENRY C. SWAN.

Witnesses:

THOMAS R. BECKWITH,  
EMIL W. JAITE.