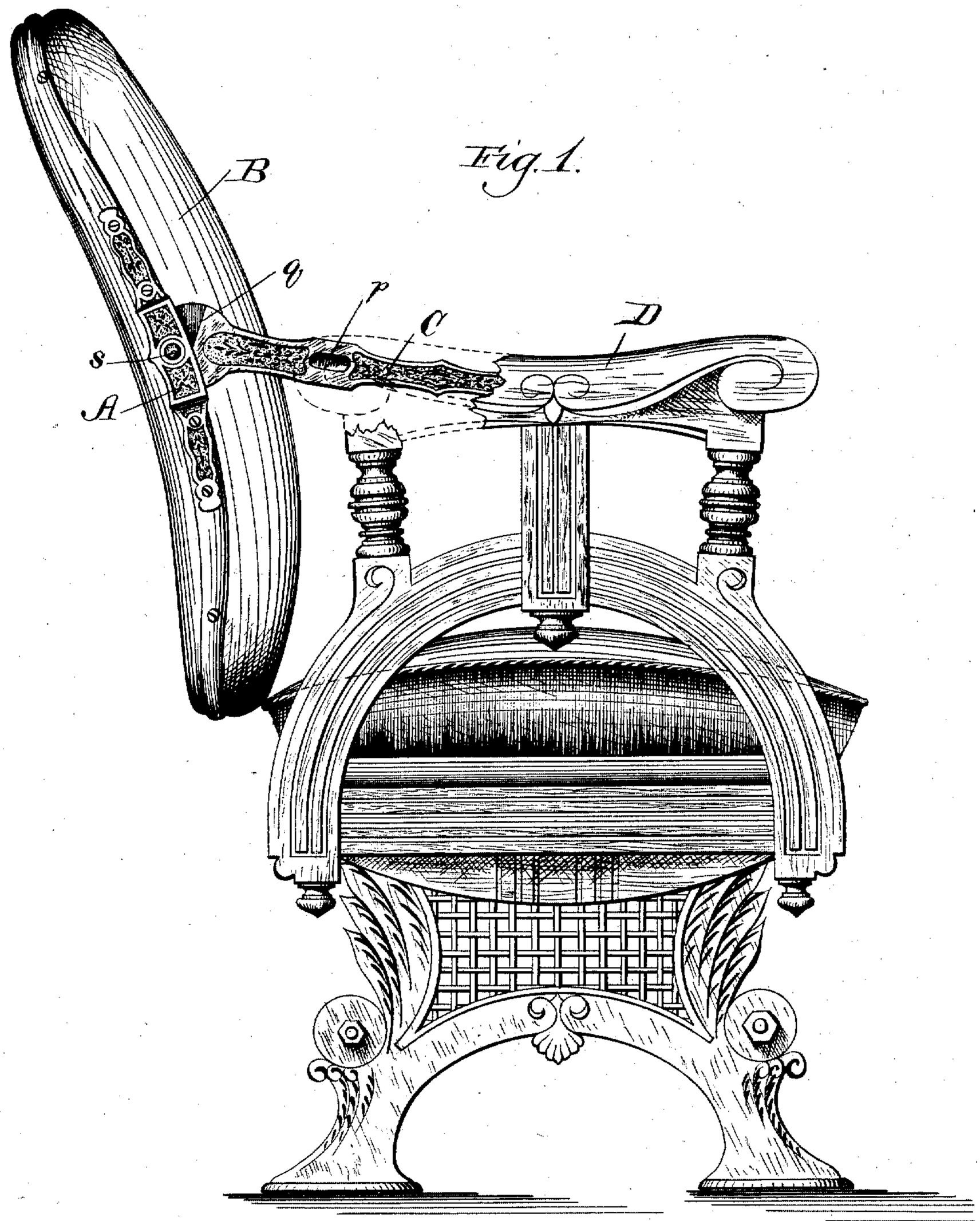
(No Model.) 2 Sheets—Sheet 1.

H. B. COBB.

CAR SEAT.

No. 318,450. Patented May 26, 1885.

Fig. 1.



Witnesses:
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

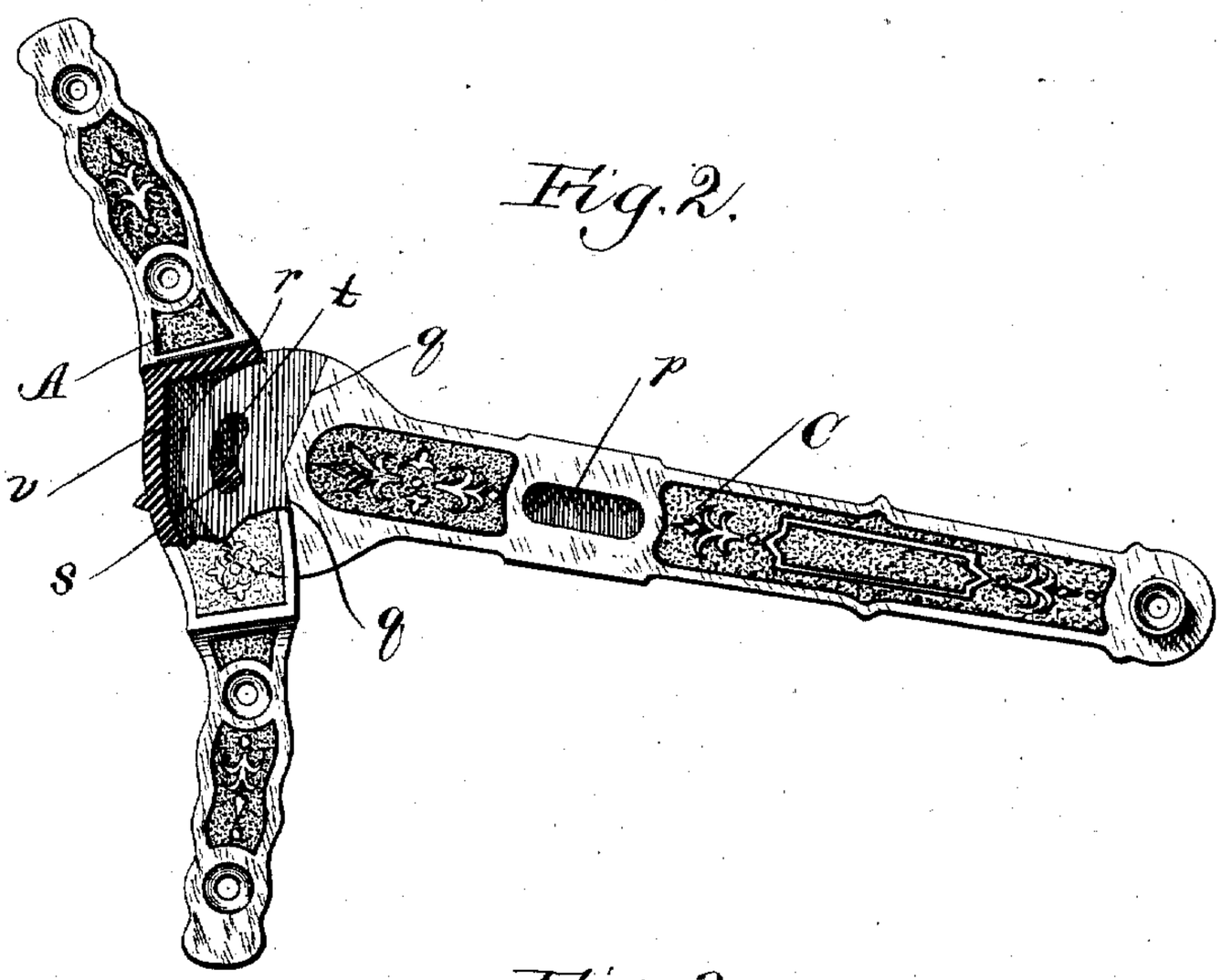
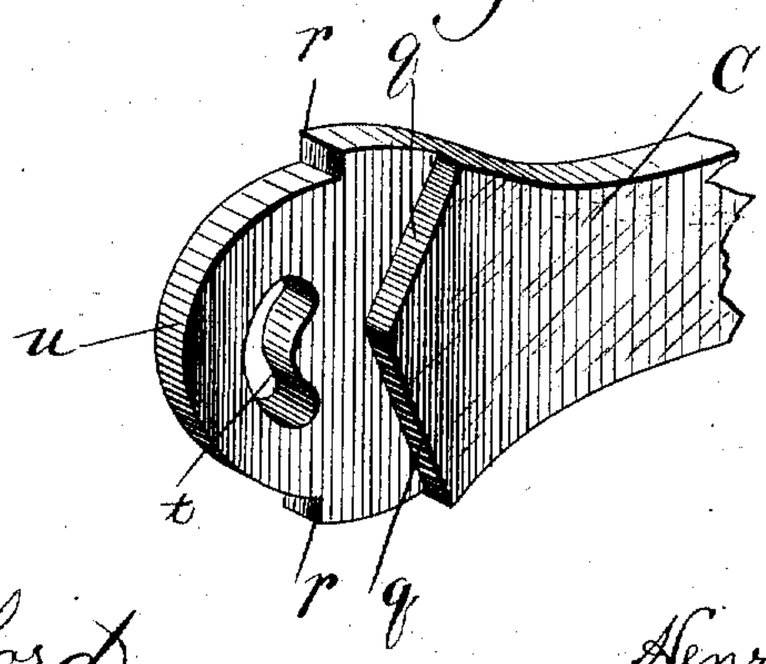


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY B. COBB, OF WILMINGTON, DELAWARE, ASSIGNOR TO THE HALE & KILBURN MANUFACTURING COMPANY, OF PHILADELPHIA, PA.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 318,450, dated May 26, 1885.

Application filed September 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. COBB, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Car-Seats; and I hereby declare the following to be a full, clear, and exact description of the same.

As seat-back arms are commonly constructed, and as they are seen in common use, to permit the reversal of a car-seat the bar is pivotally connected at one end to the seat-arm, and rigidly connected at the other end to the end of the back midway of its height. As thus constructed, it has been necessary, in order to give to the back the requisite incline and at the same time a suitable height from the seat, to have the seat-back arm inclined downward from the pivotal point, and to give to the back a height considerably in excess of that which is necessary for comfort. To give the back a height of about twenty-two inches from the seat, (the ordinary height,) it has commonly been made twenty-eight inches or more in breadth, the back extending six inches or more below the level of the seat. From this several serious disadvantages arise, one of which is, that the backs are unnecessarily cumbersome; another, that the curve of the back is thrown below the natural curve in the back of the occupant of the seat, producing discomfort; a third, that in reversing the back sweeps through so large an arc as to be inconvenient, and a fourth, that there is a serious and unavoidable waste of the various materials used in their manufacture, and this waste is especially felt in the matter of the plush covering which is employed. The width of plush as universally manufactured is twenty-four inches, and as a result it cannot be laid either lengthwise or crosswise upon backs of the size in common use without loss of material. The more economical way of laying the plush on such backs, which are ordinarily about thirty-eight inches long, is with the seam in a vertical direction; but this involves a waste of several inches of material for each back, since a double width considerably exceeds the length of a seat. It is estimated that the waste of material resulting from this excessive width of back, in such in which a height of twenty-two inches above the level of the seat is attained, is about thirty-three and one-third per cent. of the amount used. It has therefore been a problem heretofore to form the backs of car-seats of such a breadth as to extend just to or only a trifle below the level of the seat, and still give to them the requisite incline. For this purpose the back has been pivotally connected to the seat-back arm; but as a back loosely pivoted has disadvantages, among which is that of being tilted forward by any pressure from behind, devices have been suggested for automatically locking the back against such pivotal action at each reversal. The difficulty with such devices, however, so far as I am aware, is that they are too complicated to be practicable; and the object of my invention is to overcome all the difficulties named by mechanism simple in its construction, whereby it can neither add materially to the cost of manufacture nor get out of repair, and is invariably certain in its operation.

In the drawings, Figure 1 is an end elevation of a car-seat provided with my improvement, and with a part of one of the arms broken away; Fig. 2, a side elevation of my improved seat-back arms, with part of the socket-piece broken away to show the internal construction; and Fig. 3, a perspective view, enlarged, of the outer end of the pivoted bar.

A is the socket-piece, secured to each end of the back B. C is the bar, pivoted at one end, as usual, to the arm D of the seat. The end of the bar which enters the socket *v* is curved, as shown at *u*, and is provided with a curved transverse slot, *t*, through which a bolt, *s*, passes, securing it in place. On opposite edges of the head of the bar, near the end, are formed shoulders *r*, and the length of the socket must be not less than the breadth of the head, inclusive of these two shoulders. At a short distance from these shoulders a shoulder, *q*, is formed upon the face of the bar, and the most convenient way of forming this shoulder is by casting that part of the bar which enters the socket thinner than adjacent parts, as shown in the drawings.

From the above construction it is obvious that, owing to the play of the slot *t* upon the bolt *s*, whichever way the back is turned, the upper edge of the socket, when the back reaches

its normal position, must drop down against the upper shoulder *r* upon the bar, and that the lower part of the socket must bear against the lower incline of the shoulder *q*. The shoulders *r* or the lower edges of the socket may be made slightly beveled, if preferred, to produce a tight fit.

When the back is in its normal position, it is not liable to be disturbed by the jolting of the car, owing to its inclined position, and it cannot be tilted forward by the knees of the passengers in the seat behind, since the upper shoulder always serves as a stop. It will thus be seen that the above construction affords, whichever way the back is turned, an automatic lock, so far as the above two sources of disturbance are concerned.

For the prevention of reversal, the seat-back arm is provided with a recess, *p*, to permit it to be locked in the usual manner.

The above construction permits the bar C, instead of inclining downward from the pivotal point, as it must to afford the requisite incline when rigidly connected to the back, to lie horizontally, or to incline upward from its pivotal point, still allowing the back to have the requisite incline, so that the back need be made no broader than is required to afford the height necessary for comfort alone. It is obvious that the greater the upward slope that is given to the bar C from its pivotal point upon the seat-arm the sharper must be the angle of the shoulder *q* to afford a proper incline to the back. The construction shown in the drawings is the one which I prefer to employ for the embodiment of the principle of my invention. Various mechanical changes may be made, however, without departing from the principle, and such obvious mechanical changes are intended to be included in my claims. For example, the slot, as before implied, may be either in the bar C or in the socket A, since its function of imparting to the back the shifting action referred to would be effected either way; also, any form of stop other than the shoulder *q* may be employed at the proper points—as, for example, lugs or pins near the edges of the bar or shoulders upon the edge similar to the shoulders *r*—and even though the shoulder *q* or any substitute therefor were wholly dispensed with the locking would still be effected through the medium of the slot and bolt, or equivalents thereof, and stops analogous to the shoulders *r*.

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

1. The combination of a piece, A, provided with a socket, a bar, C, provided at the end which enters the socket with a slot, *t*, and with shoulders or stops *r*, and a bolt or pin passing through the socket-piece and slot for securing the parts together, whereby the bolt is shifted from one end of the slot to the other with each reversal of the seat-back, and tipping of the back is prevented by the bearing of the socket-piece against the shoulder, substantially as described.

2. The combination of the piece A, provided with a socket, bolt *s*, and bar C, said bar being provided with the shoulders *r* and *q* and with the slot *t*, substantially as described.

HENRY B. COBB.

Witnesses:
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