

(No Model.)

H. S. HALE.  
CAR SEAT LOCK.

No. 433,168.

Patented July 29, 1890.

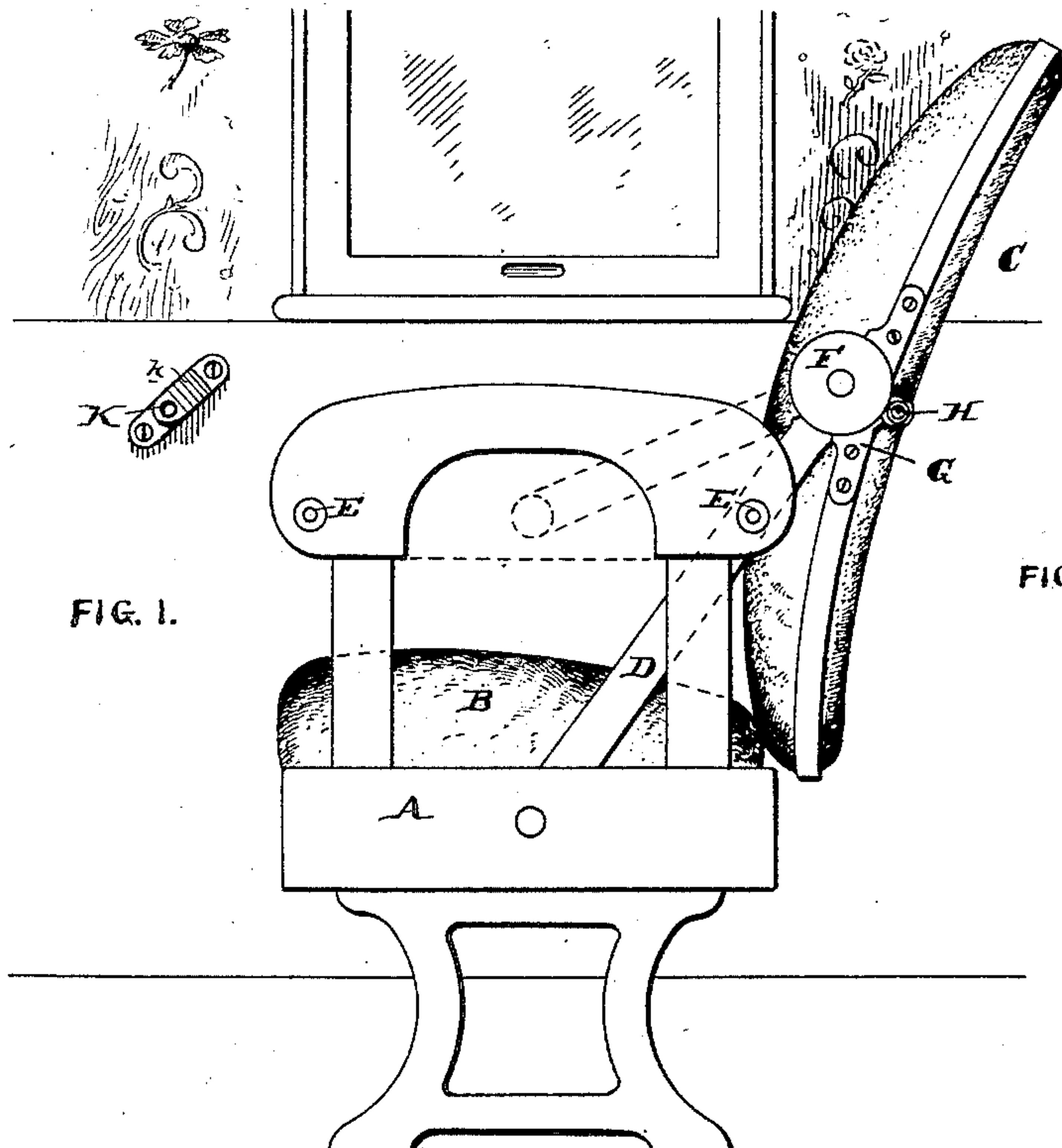
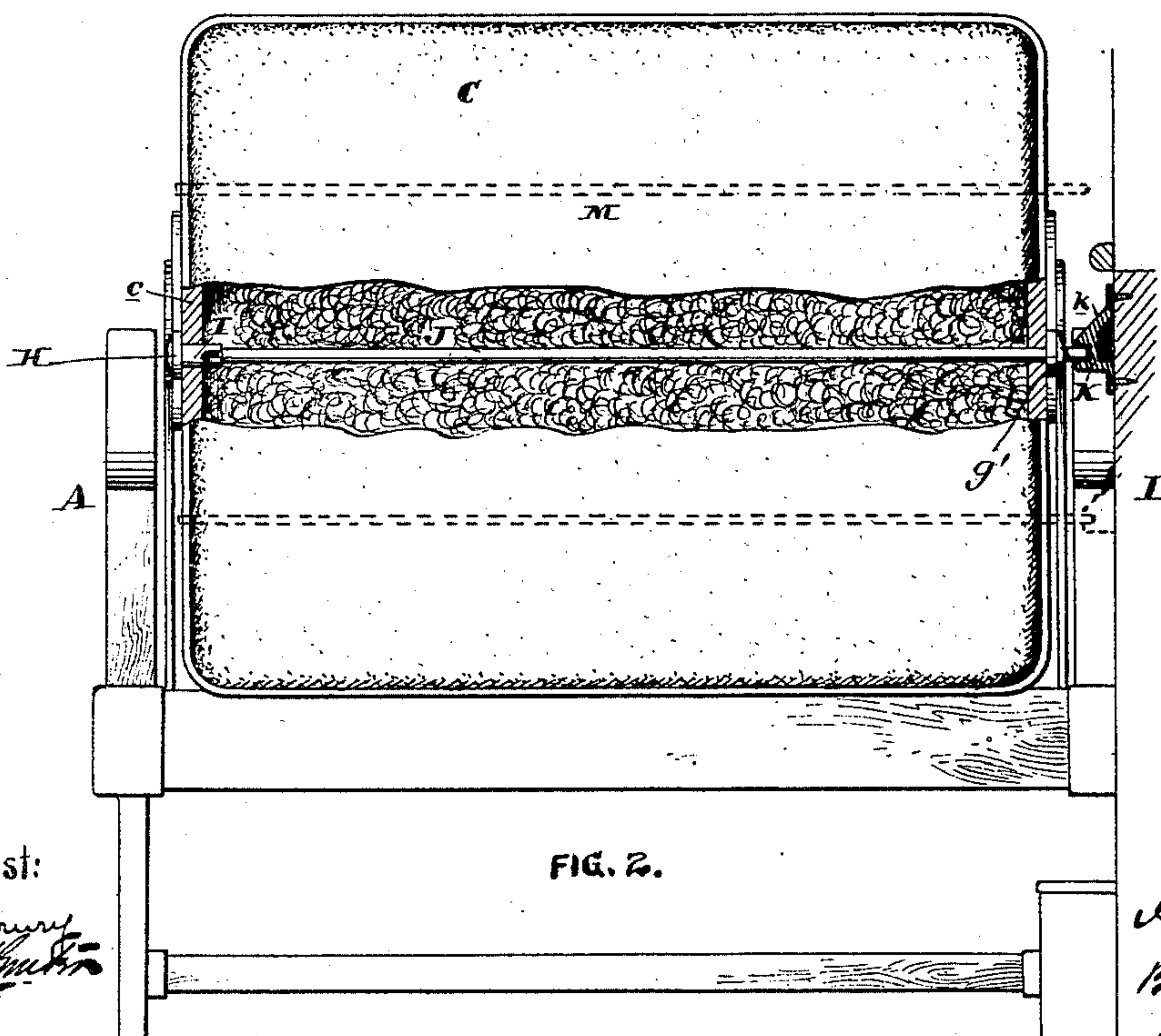
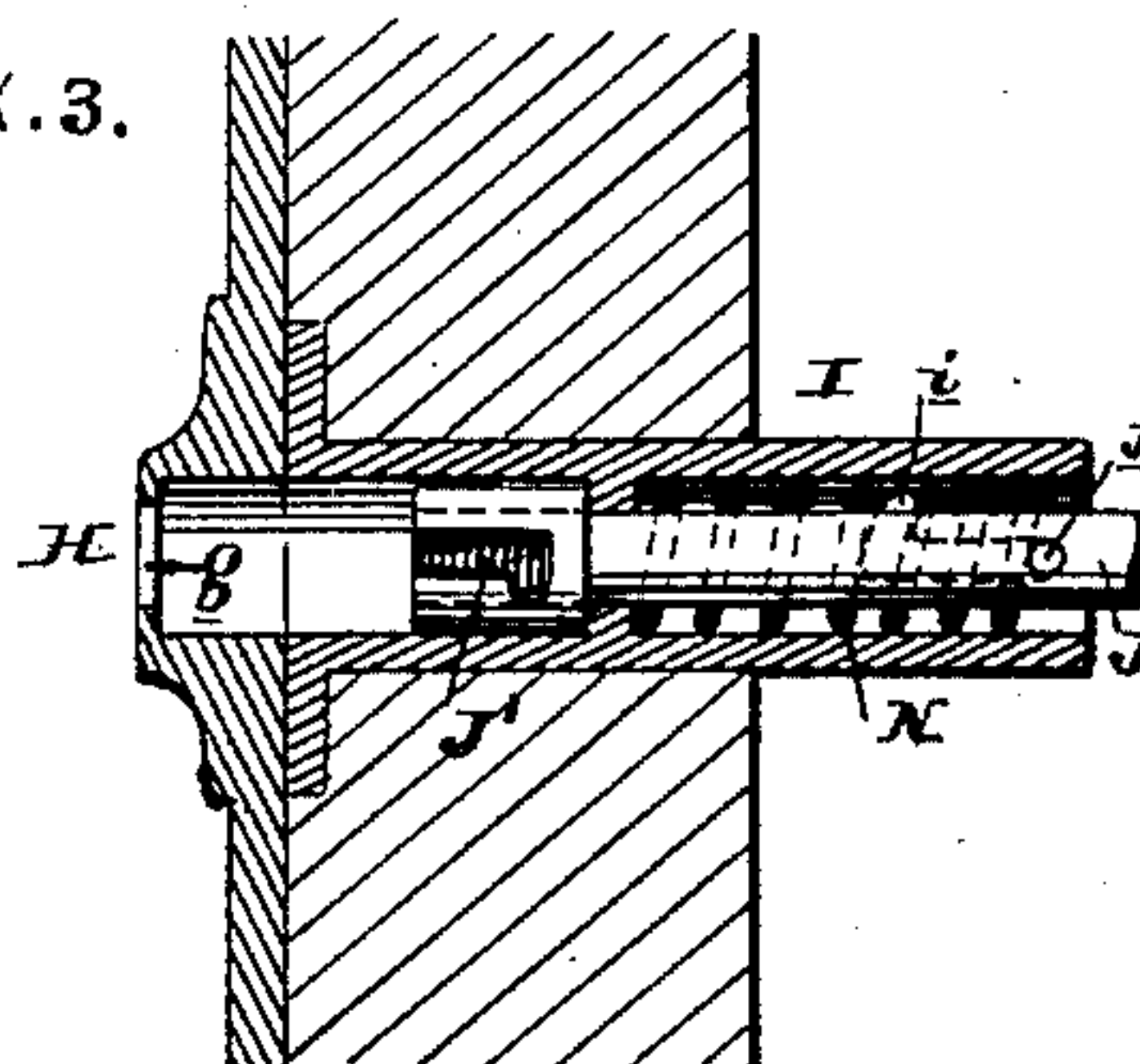


FIG. 3.



Attest:

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*Witness*

Inventor:

*Henry S. Hale*  
*By his atty*

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# UNITED STATES PATENT OFFICE.

HENRY S. HALE, OF PHILADELPHIA, PENNSYLVANIA.

## CAR-SEAT LOCK.

SPECIFICATION forming part of Letters Patent No. 433,168, dated July 29, 1890.

Application filed January 3, 1888. Serial No. 259,678. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY S. HALE, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement  
5 in Car-Seat Locks, of which the following is a specification.

My invention has reference to car-seat locks; and it consists in certain improvements, all of which are fully set forth in the following  
10 specification, and shown in the accompanying drawings, which form part thereof.

Heretofore it has been customary in the better class of car-seats to provide locks to hold the seat-back securely locked in either  
15 of its two extreme positions; but it has only been the custom to lock the outer end of the back or its arms—that is, the end next to the aisle. In many instances travelers have attempted to force the seat-backs up by  
20 wrenching at the inner ends, where the back is not secured. This injures the seat as an entirety, and it is to avoid this difficulty that my invention is designed. As far as I am aware, no reversible car-seat has ever been  
25 made with a locking device for each end of the seat, and therefore I do not limit myself to any details of construction, but describe and show that form of my invention which I have found most practicable and readily applied.

30 In carrying out my preferred construction I provide the usual locks for acting on the outer end of the seat-back or its striker-arm. The other lock for securing in the inner end of the seat-back I arrange upon the back  
35 itself, preferably hidden from view by the upholstery and extending to the outer end of the seat, so as to bring the operative ends of the two locks close to each other, whereby the operator need not shift his position to  
40 manipulate both of them in reversing the seat-back. This, however, is not necessary to the broad interpretation of my invention. I thus make the lock for the inner end of the seat act directly upon the seat-back, locking it to  
45 the side frame of the car or inner end of the main frame of the seat and indirectly locking the inner striker-arm. It is most desirable to provide suitable means for holding at least one of the bolts of the two locks withdrawn,  
50 so that the operator can open one lock after the other quickly and without particular care. In practice I place this lock for the in-

ner end of the seat in the middle of the back immediately back of the hinge-connection with the striker-arm when such hinge-joint  
55 is used, and thus employ but one lock; but it is evident that two locks might be employed, if so desired, one at the upper and the other at the lower part of the back. (See dotted lines, Fig. 2.) It is immaterial to my inven-  
60 tion what the specific construction of the car-seat may be, provided that it is a reversible-back seat.

In the drawings, Figure 1 is an end elevation of the car-seat embodying my invention.  
65 Fig. 2 is a rear elevation of same with a portion of the upholstery of the back torn away, and Fig. 3 is a sectional elevation of a portion of the lock carried by the back.

A is the main frame of the seat.

B is the seat-cushion.

C is the reversible back, and is connected to the striker-arms D, preferably, by a hinge F. The striker-arms are connected with the back by the plates G. The striker-arm pre-  
75 ferred is shown as hinged to the main frame low down; but the ordinary cheaper forms may be used, in which the hinge-connection with the frame A is high up, as indicated in dotted lines.

E are the usual locks for locking the outer striker-arm, and hence the outer end of the seat-back. So far the construction is well known.

To the seat-back immediately back of the  
85 hinges F, I locate the lock H, consisting of the long locking-bolt rod J, which is guided at each end in metallic bearings at the inner end in the casting *g'* and at the outer end in the tube I. The inner end of this bolt extends  
90 out a short distance and snaps into the catches K, fastened to the side walls of the car, and preferably formed with an inclined face *k*, so that the bolt will run up said face and snap into the recess. The other end of the bolt  
95 works in the tube I, having the slot *i*, in which the pin *j* in the bolt works, and may be locked to hold the bolt back out of action. A spring N is placed within this tube and presses upon the pin *j*, with a tendency to project the bolt  
100 outwardly. The key-hole *g* is formed in an extension of plate G, which holds the tube I to the frame *c* of the back C, (see Fig. 3,) and the end of the rod J is provided with the



usual slot J', by which the key may be inserted to draw the bolt back and, if desired, turn it so that its pin *j* may catch in the crook of the slot *i*. The particular detail of this lock H is immaterial, and might be modified or varied in a large number of ways without departing from the spirit of my invention. The upholstery M of the seat-back securely hides the bolt J and its connections from view. The entire construction is one which admits of great durability in wear and simplicity in construction. With a rotary seat-back two bolts L, (dotted lines Fig. 2,) may be employed, arranged on each side of the center line of the seat-back, instead of the single central bolt J.

In operation it is simply necessary to withdraw the bolt J and then unlock the lock E, when the back can be thrown. The catch or pin *j* for the lock H might be dispensed with. By operating the lock E first the striker-arm could be freed, and then, after opening lock H, the back could be thrown.

While I prefer the construction shown, I do not limit myself to any details of construction.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-seat lock, the combination of the main frame, a seat-back, hinge-arms connecting the seat-back with the main frame, a

lock upon the inner side of the seat adjacent to the wall of the car, and an extension for operating said lock extending to the outer side of the seat, whereby the lock adjacent to the wall may be operated from the aisle or outer side of the seat.

2. In a car-seat lock, the combination of the main frame, a seat-back provided with upholstery, hinge-arms connecting the seat-back with the main frame, and a long locking-bolt, to lock the inner end of the seat-back in its extreme positions, carried by the seat-back and extending from the outer to the inner end thereof, located under the upholstery of the seat-back, so as to be concealed from view.

3. In a car-seat lock, the combination of the main frame, a seat-back, hinge-arms connecting the seat-back with the main frame, a long locking-bolt carried by the seat-back and extending from the outer to the inner end thereof to lock the inner end of the seat-back in its extreme positions, catches for the bolt on the wall of the car, and a spring to project the bolt into the catches.

In testimony of which invention I hereunto set my hand.

HENRY S. HALE.

Witnesses:

R. M. HUNTER,  
ANDREW ZANE, Jr.