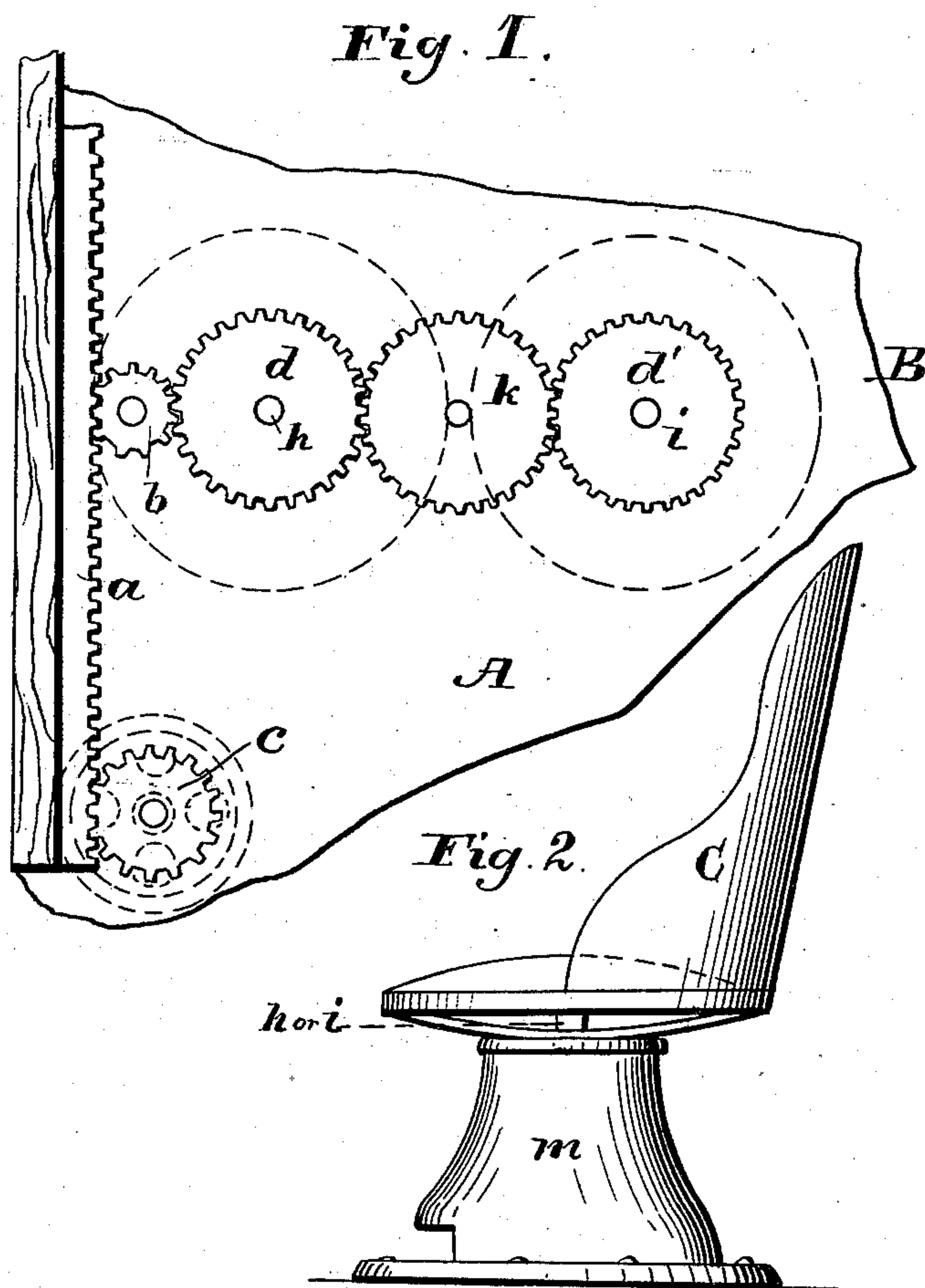


C. P. KIMBALL.

Car Seat.

No. 79,837.

Patented July 14, 1868.



Witnesses:

Amos B. Searey

Henry C. Houston

Inventor:

C. P. Kimball.

United States Patent Office.

C. P. KIMBALL, OF PORTLAND, MAINE.

Letters Patent No. 79,837, dated July 14, 1868.

IMPROVED CAR-SEAT.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, C. P. KIMBALL, of Portland, in the county of Cumberland, and State of Maine, have invented a new and useful Improvement in Car-Seats; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan of the rack and gears.

Figure 2 is a side elevation of a chair or seat.

The most common method of constructing car-seats is well known to be that where the back of the seat is attached to two bars pivoted to the centre of the seat arms, and the backs can thus be swung in a segment of a circle up over the seat, so as to make the seat front either one or the other way, as desired. With this arrangement travellers often monopolize two benches when they ought not properly to be entitled to more than two or three seats. Locks have consequently been invented to prevent two adjacent seats from being turned so as to face each other, without the consent of the conductor.

It is the purpose of my invention to produce car-seats, none of which can be turned at all without the aid of the proper official, and of which all or a part only can be turned, as desired, or all can be turned at once, so as to obviate the necessity of having some one pass through a car and turning over all the backs of the seats when the direction of the car is reversed, as is now commonly the case.

My invention consists in a rack or racks with a pinion or pinions, which turn gears rigidly attached to the revolving posts of the chairs, and so turn the chairs, or revolve them in horizontal planes, as desired.

Let A show the bottom or floor of a car; B, the aisle between the two rows of seats. *a* is a sliding toothed rack, either resting on the floor of the car or set in the side thereof, but in such way arranged as to operate a pinion, *b*. This rack may be operated on the car platform or any convenient place, by a brake having a gear, as *c*, or by any other known and convenient means. This lever or brake may be locked so as not to be moved except by the person having the means of releasing the same, and so all of the seats of the car can be controlled by the lever, its rack, and the pinions and gears. *d* and *d'* are two gears to be rigidly attached to the chair-posts *h i*, which gears, being moved by the pinion *b*, revolve, carrying with them the chairs set on these posts *h i*. *k* communicates the motion of one seat to another.

The chairs revolve, as before specified, in horizontal planes on their posts *h i*. A lever, rack, pinions, and gears are provided for each row of the seats, that is, on each side of the car. C shows the chair or chairs with post *h* or *i*, and a shell or cylinder, *m*, in which are the gears *d d'*. In swinging around, the chairs turn free from each other. This shell being secured to the car floor, protects the gears. It is obvious that the length of the racks *a* can be so regulated as to turn half, or more or less of the seats on one side of a car.

Thus, when a car has reached a place of destination, and is to return, the seats can be quickly and easily reversed by operating the racks and gears on each side of the car.

The seats can be made of any desired patterns, together or separate, turning on one or two posts, according as they are thus together or separate.

I have shown a convenient form of chair in the drawing, but do not limit the application of my invention to this alone.

It will be seen that the seats operate independent of each other, or each turns on its own post or upright pivot. It is evident that instead of the rack, *a*, a band or bands, pulleys, chain, or other equivalent device, could be employed.

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

1. Locking or securing the seats of cars so that they cannot be turned or reversed, either separately or all together, without operating the lever or brake *c*, in the manner and by the means substantially as set forth.
2. Operating or reversing in horizontal planes the seats of cars by means of a rack and lever or brake and gears, substantially as and for the purposes herein set forth.
3. Reversing all the seats on one side of a car simultaneously by one lever or brake, as and for the purposes set forth.
4. Arranging the seats of cars so that each one of the separate chairs or seats will turn independent of the other, substantially as and for the purposes herein set forth.

C. P. KIMBALL.

Witnesses:

HENRY C. HOUSTON,
WM. FRANK SEAVEY.