3 Sheets—Sheet 1.

J. L. MITCHELL.

SLEEPING-CAR.

No. 171,238. Patented Dec. 21, 1875.

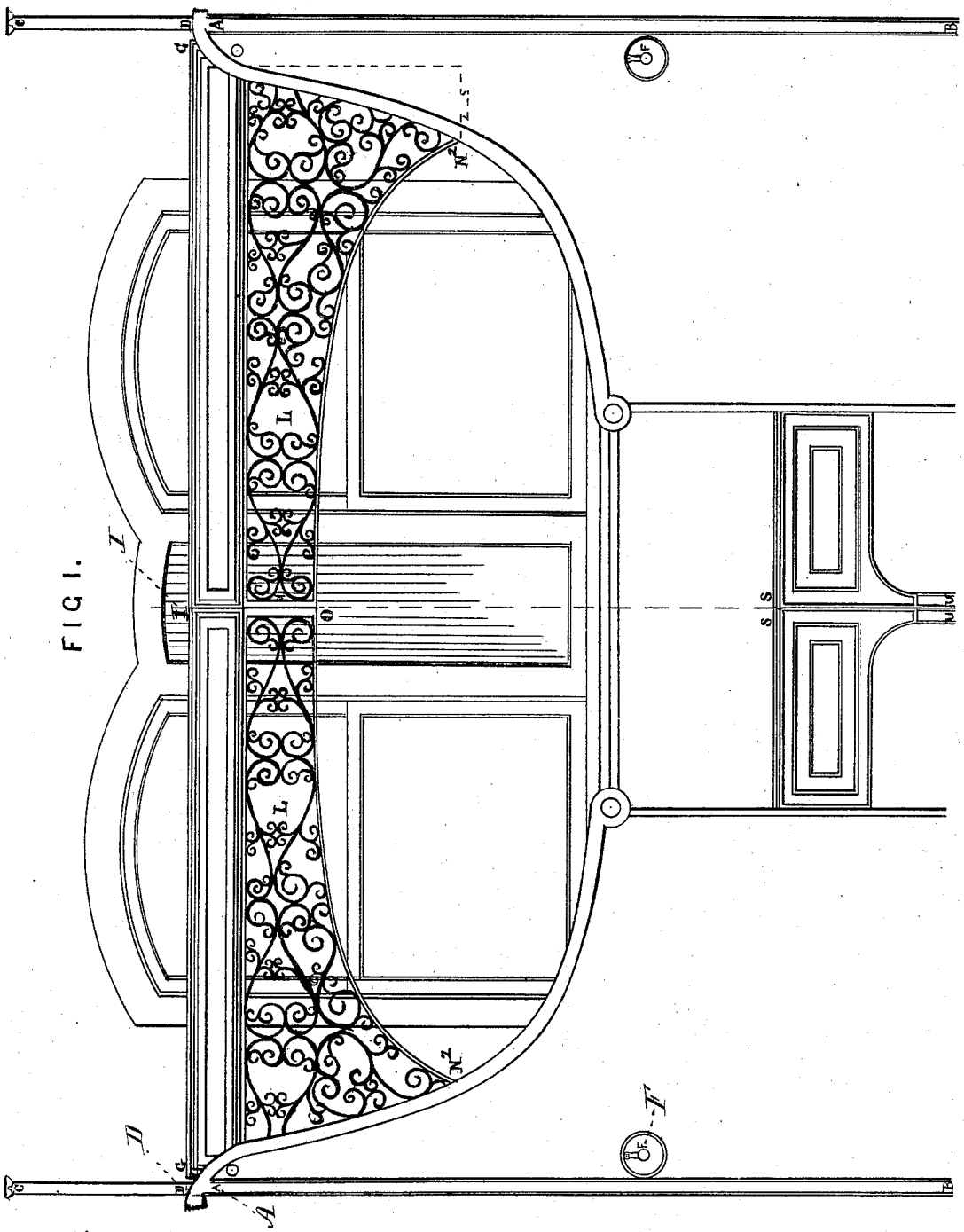


FIG 1.

Witnesses
Henry K. Pinckney

James L. Mitchell
Inventor.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

3 Sheets—Sheet 2.

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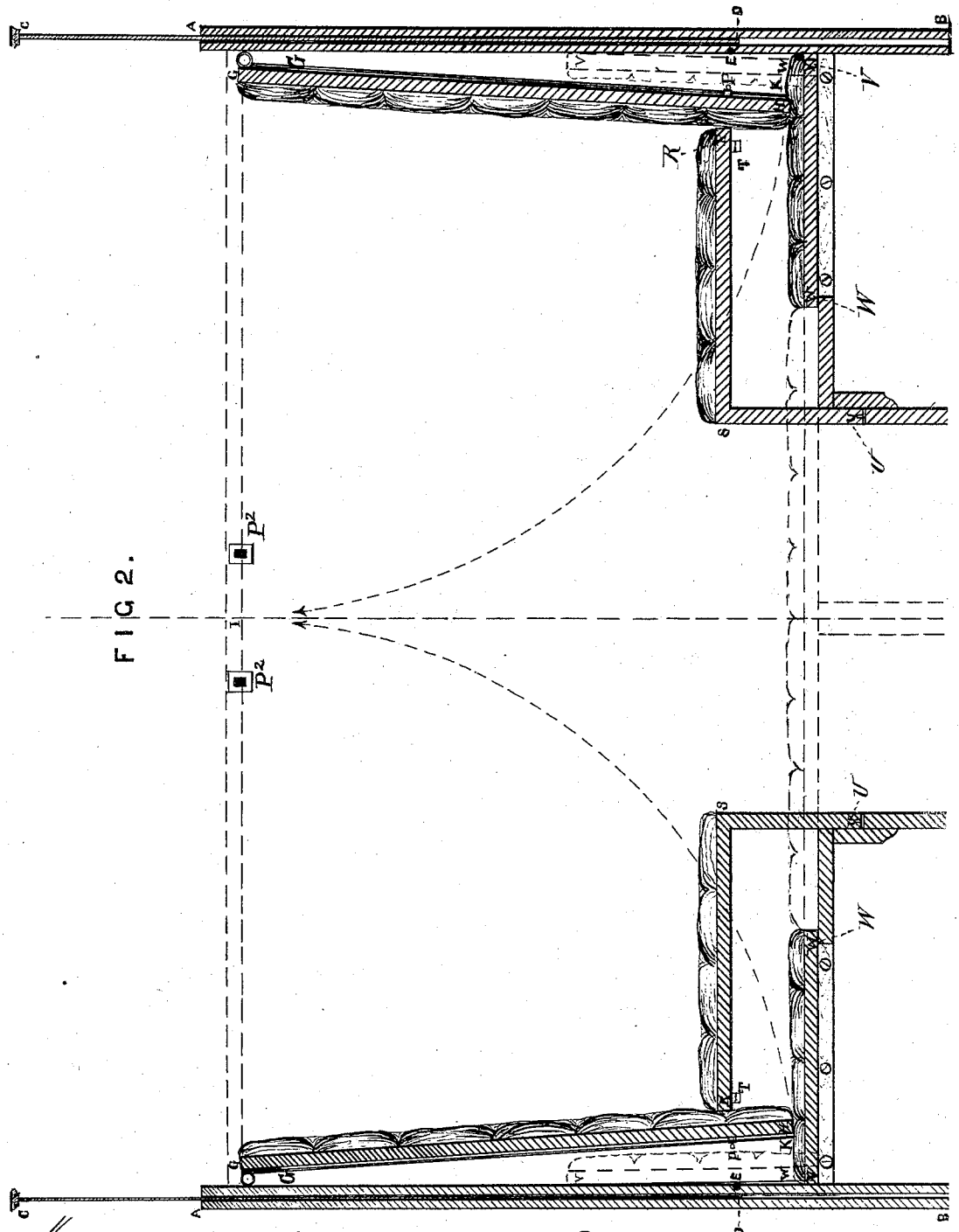


FIG 2.

Witnesses
Henry K. Brickney

James L. Mitchell
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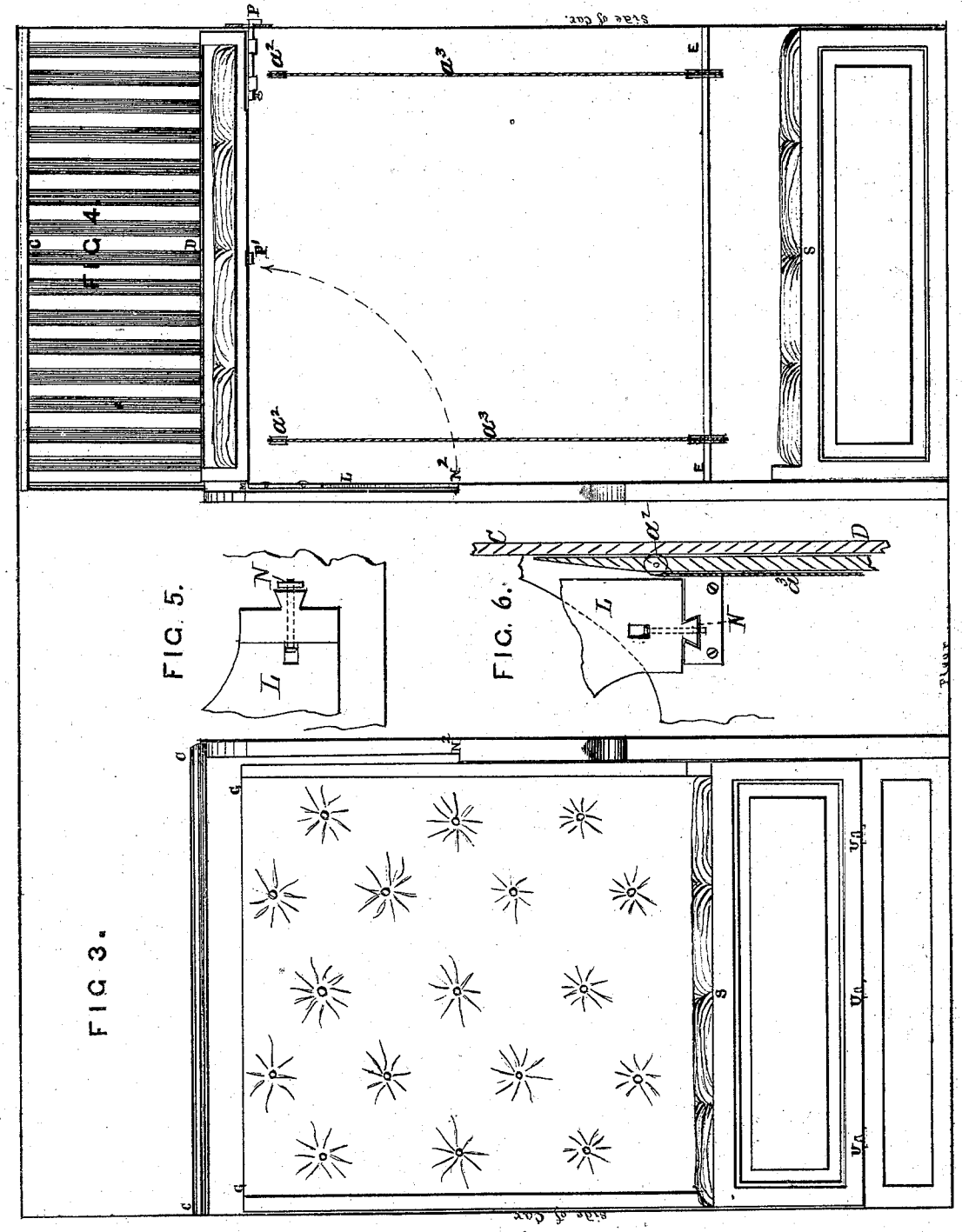
N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

3 Sheets—Sheet 3.

J. L. MITCHELL.

SLEEPING-CAR.

No. 171,238. Patented Dec. 21, 1875.



Witnesses
Henry K. Pinckney

James L. Mitchell
Inventor

Scale ½" = 1ft

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES L. MITCHELL, OF PUEBLO, COLORADO TERRITORY.

IMPROVEMENT IN SLEEPING-CARS.

Specification forming part of Letters Patent No. **171,238**, dated December 21, 1875; application filed June 21, 1875.

To all whom it may concern:

Be it known that I, JAMES L. MITCHELL, of Pueblo, Pueblo county, Colorado Territory, have invented certain Improvements in the Seats or Couches of Sleeping-Cars, of which the following is a specification:

My invention relates to railway-cars adapted for both day and night travel; and a special feature of improvement consists of brackets hinged to the seat-backs in a novel manner, and combined with fastenings in the seat ends, car-wall, and seat-backs, in such manner that the bracket of each seat-back can be dropped down in front of the couch to form a continuous arch-support for the aisle side of the upper couch, and fastened at two points—the heel and the middle—and turned under and fastened to the seat-back out of the way when the seat-backs are lowered. The feature of the continuous arch-support at the front of the couch is entirely new, so far as I know, and the manner of securing these brackets when so arched is not only advantageous, but new in connection with such front spanning arches. These arch-supports fold under against the inner side of the seat-backs, when the latter are adjusted for day travel, and the same bolts which serve to secure them as arched supports serve also to fasten them to the seat-backs. The vertically-sliding panels are raised and lowered by crank-shafts having cord and pulley connections with said panels. This renders the adjustment of the panels very convenient from the floor of the car.

Figure 1 is an elevation of one section of a sleeping-car prepared for the night embodying my invention. Fig. 2 is a longitudinal section of the same in form of seats. Fig. 3 is an end elevation of one-half of a section in the form of a seat. Fig. 4 is an end elevation of one-half of a section made up into berths or couches.

A B, Figs. 1 and 2, are the divisions between the sections or compartments of the car, and are made hollow to admit the sliding panels C D. E E, Fig. 2, are shafts fitted with either pinions working into racks on the side of panels C D, or with spools and cords a^2 a^3, Fig. 4, attached to panels for raising and lowering the same. The shafts E E are turned by means of the cranks F, Fig. 1, which cranks will be arranged with a clamp-screw to hold at any point. G H, Fig. 2, are the seat-backs which form the upper berth, and are hinged at G, so as to be turned up readily into the horizontal position G I, Fig. 1. The double line G K, Fig. 2, represents the brackets L, Figs. 1 and 4, which are hinged to the outer edge M of its half of the upper berth, Fig. 4, and when in form of seats folds under and behind the backs, and are held by the bolts N shooting into socket P′ on the inner side of the seat-back, as shown in Fig. 5, which is a view of the heel of the bracket L as it appears when folded and fastened to the seat-back by the bolt N. When, however, the brackets are dropped down into vertical positions, as shown in Figs. 1 and 4, the same bolts N serve as the means for securing the brackets in their arched positions, as shown in Fig. 6, which is a section looking at the inner side of the heel of the bracket when its bolt N and dovetail are fastened into the socket on the inner side of the seat end. In Fig. 1 these brackets are shown as forming a front arched support to the upper couch. In Fig. 4 one of them is shown as fastened down at N^2, and in Fig. 2 a double line at the inner side of the seat-back shows the bracket folded the full length of the seat-back. The brackets L are supplied at the points N^2 O, Fig. 1, with couplings, consisting of a dovetail with a spring-bolt, Figs. 5 and 6; or, in lieu of this, thumb-screws may be used to lock them securely in the arch form N^2 O N, Fig. 1. P P, Figs. 2 and 4, are hook-bolts, which support the upper berth, and secure it to the side of the car. R S, Fig. 2, are the shifting-seat bottoms which form the lower berth, and which are secured in their position as seats by the pins U and bearing T. Pass from the arrangement of seats to that of sleeping-berths, the upper seat body R S U is slightly raised and carried forward to the position indicated by the dotted lines, Fig. 2. The seat-backs G H, Fig. 2, are then swung to the horizontal position G I G, and the bolts P shot into the sockets P^2 in the side of car. The bracket-bolts N are then withdrawn from the socket P^1, Fig. 4, allowing bracket to swing down and again lock at N^2, Figs. 1 and 4. The thumb-screw at O is then screwed up, securing the

brackets in the arch form. The cushion V W, which may stand in rear of seat-back, in position indicated by dotted lines, is then placed in the position shown in Fig. 2. Sliding panels C D are then run up by turning the cranks F, Fig. 1, thus closing the space between the compartments of the car between the upper berth and roof of car. Reverse this operation to return to seats.

Supporting the upper couch by brackets hinged to the chair-frames has been done before in different ways, and I do not claim a bracket-support, as such, for the upper berth, but only the novel manner of hinging the brackets along the front edge of the seat-backs, so that they meet in the middle of the berth, and are there fastened to each other, while by means of a heel-extension it is fastened to the seat end, and in which the joining and heel fastenings of these brackets are readily unfastened to allow them to be turned under the seat-backs and there fastened.

I claim as my invention—

1. The brackets L, hinged to the seat-backs, as described, and combined therewith, and with the seat ends to form, when dropped down, a continuous front arch-support fastened together for the aisle side of the upper couch, and turned out of the way when the seat-backs are lowered, as herein set forth.

2. The brackets L, hinged to the seat-backs, as described, in combination with the fastening device N P^1, by which said brackets are held in place when folded.

3. The brackets L, hinged to the seat-backs, as described, in combination with the seat-end-fastening device, as shown and described.

4. The brackets L, hinged to the seat-backs, as described, each having a heel-extension provided with a bolt, N, which serves as the means by which the brackets are both secured in their arched and folded positions, as described.

5. The combination with the vertical sliding panels C D of the crank-shaft E F, and the cords and pulleys a^2 a^3 connecting said panels with the winding and unwinding shafts, whereby the panels are raised and lowered from the floor of the car.

JAMES L. MITCHELL.

Witnesses:

KEYES DANFORTH,

HENRY K. PINCKNEY.