

(No Model.)

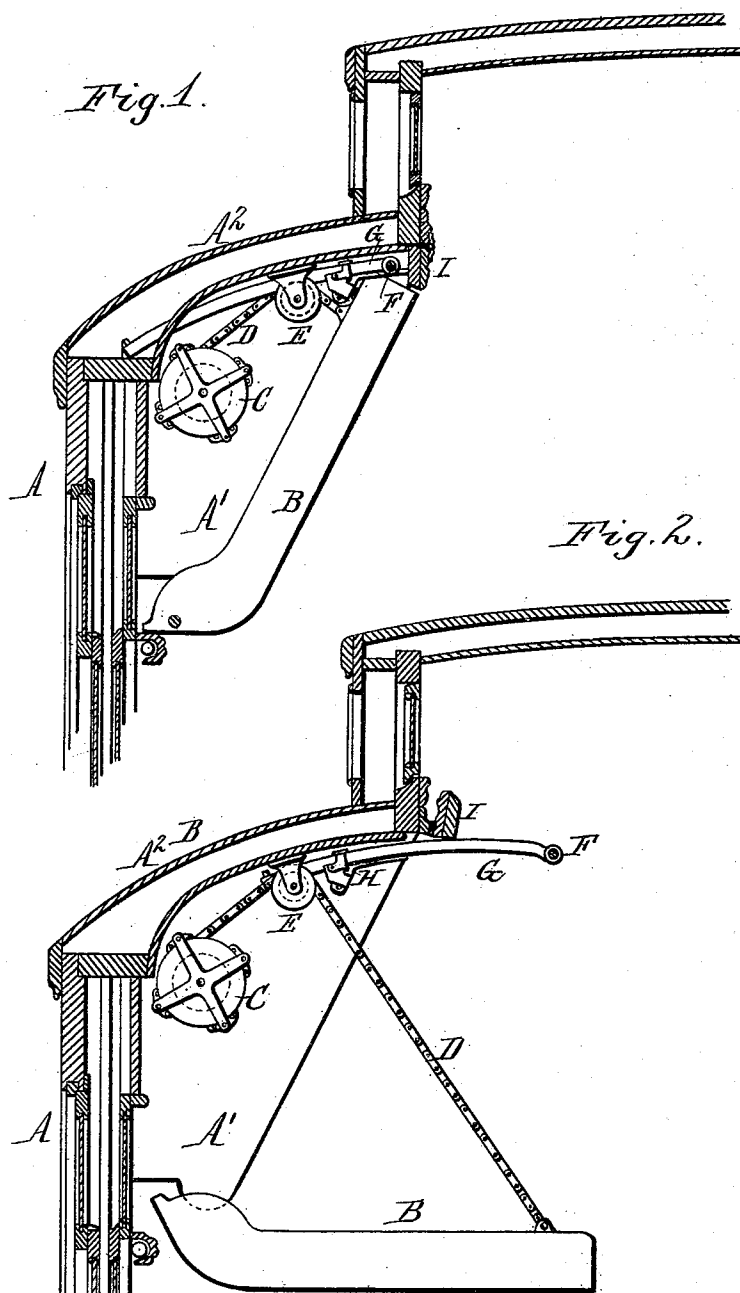
4 Sheets—Sheet 1.

A. SELBY.

CURTAIN ROD FOR SLEEPING CARS.

No. 496,621.

Patented May 2, 1893.



Witnesses:

F. J. Juntar. Wilhelm.

Emil Neuhart.

Allen Selby Inventor.

By Wilhelm R. R. R.

Attorneys.

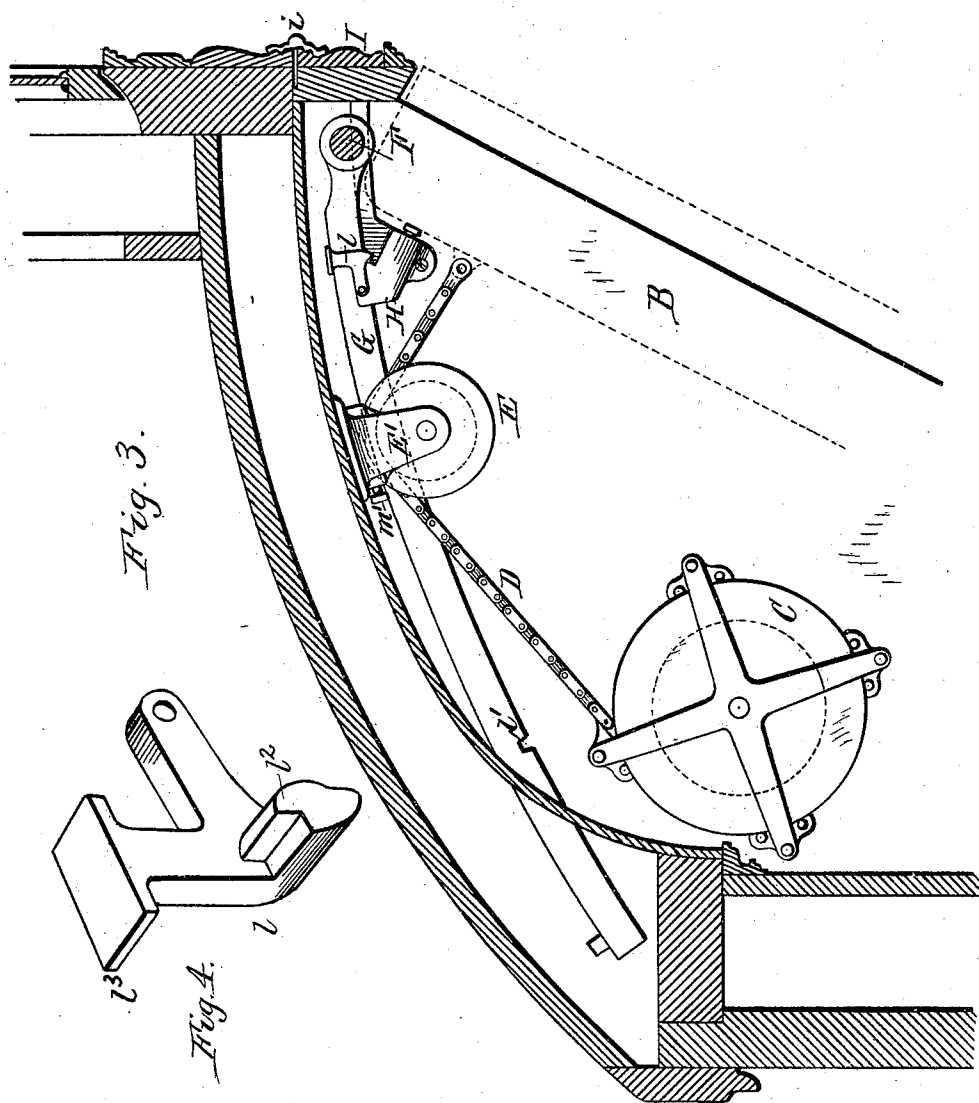
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4 Sheets—Sheet 2.

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Witnesses:

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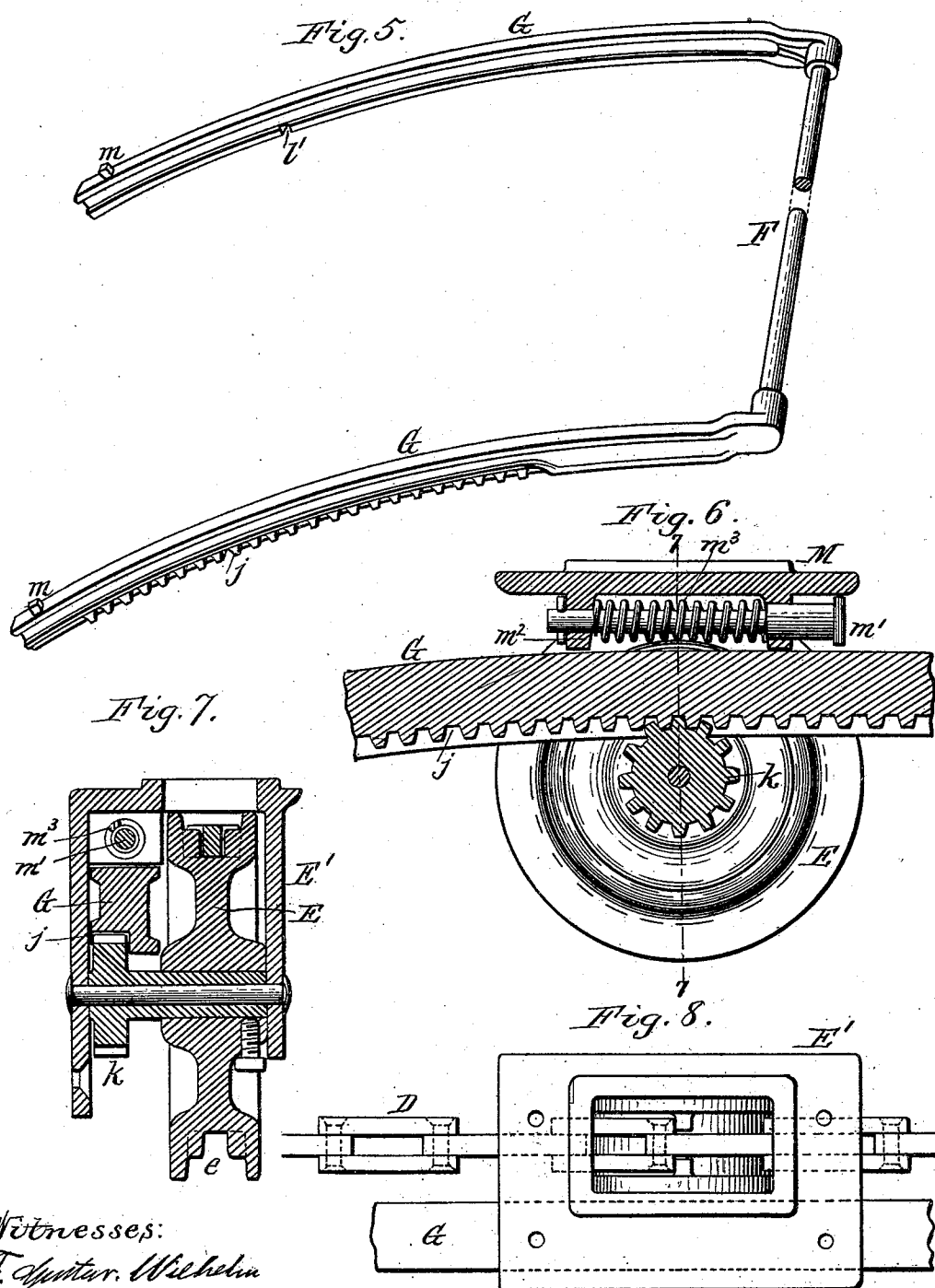
4 Sheets—Sheet 3.

A. SELBY.

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Witnesses:

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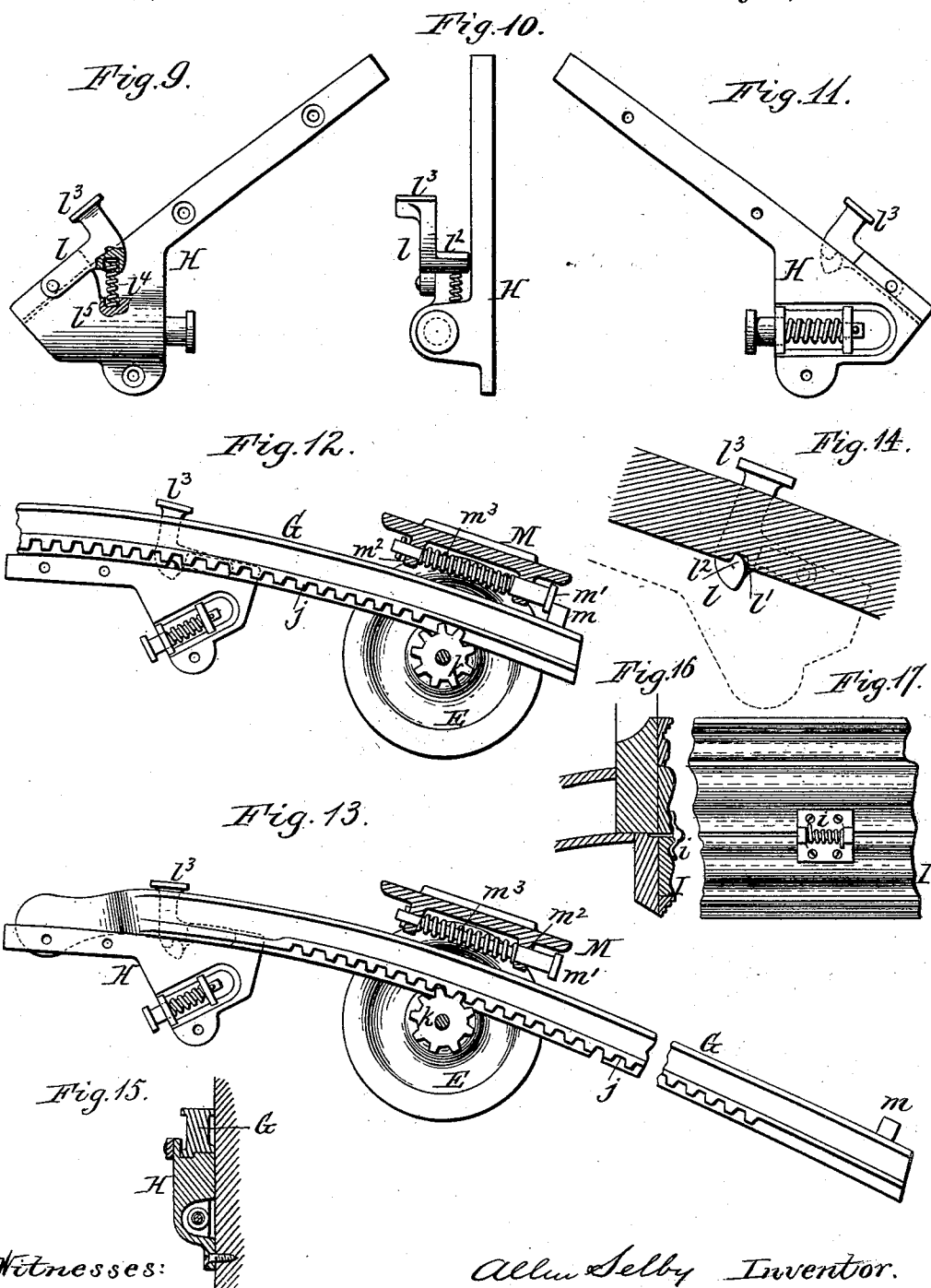
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UNITED STATES PATENT OFFICE.

ALLEN SELBY, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO HENRY P. BURGARD, OF SAME PLACE.

CURTAIN-ROD FOR SLEEPING-CARS.

SPECIFICATION forming part of Letters Patent No. 496,621, dated May 2, 1893.

Application filed January 26, 1893. Serial No. 459,836. (No model.)

To all whom it may concern:

Be it known that I, ALLEN SELBY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have
5 invented new and useful Improvements in Curtain-Rods for Sleeping-Cars, of which the following is a specification.

This invention relates to the longitudinal curtain rods which are arranged above the
10 upper berths of sleeping cars, and more especially to curtain rods of this kind which are movable transversely of the car, so that they may be extended or projected for use at night, or pushed back out of sight, or in
15 close proximity to the adjacent portion of the car roof, during the day time. Such curtain rods have hitherto been moved in and out by hand.

My invention has for its object to so construct and arrange the curtain rod that the same is extended and retracted by the movements of the upper berth, in raising and lowering it, thereby saving the time and trouble of shifting the rod by hand and facilitating
25 the making up of the berths.

In the accompanying drawings consisting of four sheets:—Figure 1 is a fragmentary transverse section of a sleeping car provided with my improved curtain rod, showing the
30 berth raised and the curtain rod retracted. Fig. 2 is a similar view, showing the berth lowered and the rod extended to the position for supporting the curtain. Fig. 3 is a fragmentary transverse section of the car similar to Fig. 1, on an enlarged scale. Fig. 4 is a
35 perspective view of the catch which limits the outward movement of the supporting arms of the curtain rod. Fig. 5 is a detached perspective view of the curtain rod and its supporting arms. Fig. 6 is a fragmentary longitudinal section of one of the supporting arms of the curtain rod and adjacent parts, on an enlarged scale. Fig. 7 is a cross section in line 7—7, Fig. 6. Fig. 8 is a detached top
40 plan view of one of the chain-pulley brackets and subjacent parts, on an enlarged scale. Fig. 9 is an enlarged side elevation of one of the brackets of the supporting arms. Fig. 10 is a front view of said bracket. Fig. 11 is an inside or rear view of the same. Fig. 12 is a
50 fragmentary sectional elevation of one of the

supporting arms and adjacent parts, viewed from the side opposite from that shown in Figs. 1, 2 and 3, and showing the teeth of the arm disengaged from the shifting pinion of
55 the arm. Fig. 13 is a similar view, showing the teeth of the arm in engagement with said wheel. Fig. 14 is a fragmentary longitudinal section, on an enlarged scale, of one of the supporting arms showing the catch in engagement with its locking notch. Fig. 15 is
60 a cross section of one of the supporting arms and its supporting bracket. Fig. 16 is a cross section of the car-deck and the apron which covers the curtain rod when in its retracted
65 position. Fig. 17 is a face view of said parts.

Like letters of reference refer to like parts in the several figures.

A represents one of the side walls of the car, A' the stationary partition forming the
70 end wall of the car section, and A² the lower deck of the car.

B is a sleeping berth arranged between the transverse partitions of the section and pivoted at its outer longitudinal side to the side
75 wall of the car so as to be capable of folding upward toward the lower deck, in a well known manner.

C represents one of the counter-balancing spring drums of the berth, and D the chain
80 connecting the free inner portion of the berth with said drum, whereby the berth is held in its raised position. This chain passes over the usual guide wheel or pulley E attached to the under side of the lower deck as shown.
85 This guide pulley is arranged in a bracket E' secured to the under side of the lower deck, and is preferably provided in its periphery with sockets or recesses *e* as shown in Fig. 7, which receive the links of the counter-balancing chain, so as to prevent slipping of the
90 latter on the pulley and compel the pulley to move with the chain. A counter-balancing spring drum C and a chain D are arranged at each end of the berth, in the customary way.
95

F is the curtain rod arranged lengthwise above the free inner portion of the berth and from which the curtain is suspended. This rod is supported at the outer ends of transverse arms G arranged on the inner sides of
100 the end walls of the car section, adjacent to the car deck and capable of sliding toward

and from the aisle of the car. Each of these arms is supported and guided with its outer portion upon a bracket H, secured to the adjacent end wall of the section, as shown in Fig. 15.

I is the apron or molding strip depending from the inner longitudinal edge of the lower deck and closing the space between the latter and the upper edge of the berth, when the berth is raised, as shown by full lines in Figs. 1 and 3. This apron stands in front of the curtain rod and conceals it when the rod is in its retracted position and in order to permit the rod to move outward to the extended position shown in Fig. 2, the apron is movably attached to the roof in such manner, as to allow the rod, when extended, to push the apron out of the way and pass by it. In the construction shown in the drawings this apron is pivoted at its upper edge to the roof by a spring hinge *i* of any well known construction, which allows the apron to swing toward the car aisle and upwardly to the position shown in Fig. 2, and which automatically returns the apron to its normal depending position, when the rod is retracted sufficiently to clear the apron. In moving the curtain rod to its projected position, it strikes the inner side of the hinged apron and swings the same outwardly and upwardly out of the way, thus permitting the rod to pass beyond the apron.

Each supporting arm G is provided on its underside with a gear rack or series of teeth *j*, which mesh with a shifting pinion or gear wheel *k*, mounted upon the shaft of the guide pulley E, whereby the arms of the curtain rod are caused to move forward or backward by the rotation of said guide pulley, according to the direction in which the pulley is turned. By thus gearing the sliding supporting arms of the curtain rod with the folding berth, the upward and downward movements of the berth are transmitted to the supporting arms, whereby the curtain rod is automatically projected into its operative position and retracted simultaneously with the movements of the berth, the rod being projected in the act of lowering the berth, and retracted in the act of raising the berth. The time and labor incident to shifting the curtain rod separately is thus saved, thus enabling the berths to be prepared for use and the parts to be restored to their former position more expeditiously than heretofore.

In order to permit the upper berth to be folded up without retracting the projected curtain rod, which is desirable when only the lower berth of a section is used, the supporting arms of the curtain rod are withdrawn sufficiently to disengage their rearmost teeth from the gear pinions, as shown in Fig. 12. When the supporting arms are thus drawn out, the upper berth, after being lowered to remove the bedding for the lower berth, may be again folded up without retracting the curtain rod, as the shifting pinions *k* clear the teeth of the arms, so that the latter are

not affected by the rotation of the pinions. The arms are each preferably locked in this projected position by a catch *l* attached to the bracket H and engaging in a notch *l'* formed in the under side of the arm, near its rear end as shown in Figs. 12 and 14. Each of these catches preferably consists of an angular lever pivoted to the bracket H, on the outer side of the supporting arm and having at its angle, a tooth *l''*, adapted to engage in the stop-notch of the supporting arm, and at the upper end of its upright portion with a thumb piece *l'''*, whereby the lever may be depressed by hand for releasing the supporting arm.

l'' is a spring whereby the catch is pressed with its tooth against the supporting arm, so as to force the tooth into the notch of the arm, as soon as the notch arrives opposite the tooth. This spring bears with its lower end against a boss or ledge *l'''* formed on the base plate H and is seated with its upper end in a socket on the under side of the catch, as shown in Fig. 10. The rear side of the locking tooth *l''* is abrupt, while its front side is inclined as shown, in Fig. 4, so as to permit the locking notch of the supporting arm to ride over the tooth and depress the same out of engagement with the notch, when the curtain rod is retracted.

m is a pin or projection arranged upon the upper side of each supporting arm G, near its rear end, and M is a return device arranged in the path of said projection, which is struck by the latter during the last portion of the forward movement of the supporting arm and which automatically retracts the supporting arm sufficiently to bring its gear teeth in engagement with its shifting pinion *k*, when released by the locking catch *l*. This return device preferably consists of a transversely sliding bolt *m'*, guided in perforated lugs *m''* depending from the bracket E', and having a spiral spring *m'''*, which resists the movement of the bolt toward the aisle of the car. This spring surrounds the bolt and bears at its front end against a shoulder formed on the rear portion of the bolt and at its rear end against the rear lug of the bracket E'. The stop notches of the supporting arms G are so arranged relatively to the rearmost teeth of the arms, that the stops strike the return bolts and compress their springs as soon as such rear teeth clear the pinions. The supporting arms are locked in this extended position against the pressure of the spring bolts by the catches *l*, which automatically engage in the stop notches of the supporting arms. Upon depressing these catches, the arms are released and the springs of the return bolts react, forcing the bolts rearwardly and causing them to shift the arms in the same direction, sufficiently to throw their teeth into gear with the shifting pinions, when the curtain rod will again take part in the movements of the upper berth, as before described.

The teeth of the supporting arms prefer-

ably do not extend across the entire width of the arms, but only partly so, while the remaining portion of each arm is made smooth, as shown in Fig. 15, so as to form a narrow longitudinal rib, while the arms slide upon their supporting brackets H. The front and rear locking notches of the supporting arms are formed in this rib, as shown.

I claim as my invention—

1. The combination with the folding berth, of a retractible curtain rod, and a connection between the berth and the curtain rod, whereby the rod is projected and retracted by the movements of the berth, substantially as set forth.

2. The combination with the folding berth of a railway car, of a retractible curtain rod having a toothed supporting arm, and a gear wheel rotated by the movements of the berth and engaging with the toothed arm of the curtain rod, whereby the latter is projected by the downward movement of the berth and retracted by the upward movement thereof, substantially as set forth.

3. The combination with the folding berth of a railway car, of a retractible curtain rod having a toothed supporting arm, a guide wheel, a supporting cord or chain connected with the berth and running over said guide wheel, and a gear wheel turning with said guide wheel and meshing with the toothed supporting arm of the curtain rod, substantially as set forth.

4. The combination with the folding berth of a railway car, the counter-balancing chain of the berth and the guide wheel over which said chain passes, of a gear wheel connected with said guide wheel, a retractible curtain rod, a toothed supporting arm carrying the curtain rod and resting with its teeth upon said gear wheel, and a bracket supporting the front portion of said toothed arm, substantially as set forth.

5. The combination with the folding berth of a railway car, of a retractible curtain rod having a supporting arm movable transversely of the car and adapted to be geared with the berth, and a catch whereby the support-

ing arm is held out of gear with the berth, substantially as set forth.

6. The combination with the folding berth of a railway car, of a retractible curtain rod having a supporting arm geared with the berth, a stop for holding said arm out of gear with the berth, and a return device for shifting the curtain rod into gear with the berth when released by said catch, substantially as set forth.

7. The combination with the folding berth of a railway car, of a retractible curtain rod having a supporting arm geared with the berth and provided with a projection, a spring bolt arranged in the path of said projection, which is tensioned when the supporting arm is shifted forwardly out of gear with the berth, and a catch whereby the supporting arm is held in said projected position against the pressure of said spring bolt, substantially as set forth.

8. The combination with the folding berth of a railway car, of a retractible curtain rod arranged above the berth, and a movable apron attached to the roof structure of the car and depending in front of the curtain rod when the latter is in its retracted position, substantially as set forth.

9. The combination with the folding berth of a railway car, of a retractible curtain rod arranged above the berth, an apron pivoted at its upper portion to the roof structure of the car and depending in front of the curtain rod, substantially as set forth.

10. The combination with the folding berth of a railway car, of a retractible curtain rod arranged above the berth, an outwardly swinging apron hinged at its upper end to the roof structure and depending in front of the curtain rod, and a spring for returning the apron to its normal position, substantially as set forth.

Witness my hand this 17th day of January, 1893.

ALLEN SELBY.

Witnesses:

JNO. J. BONNER,
THEO. L. POPP.