(No Model.)

H. A. STONE.

SLEEPING CAR BERTH.

No. 262,329. Patented Aug. 8, 1882.

Fig. 1.

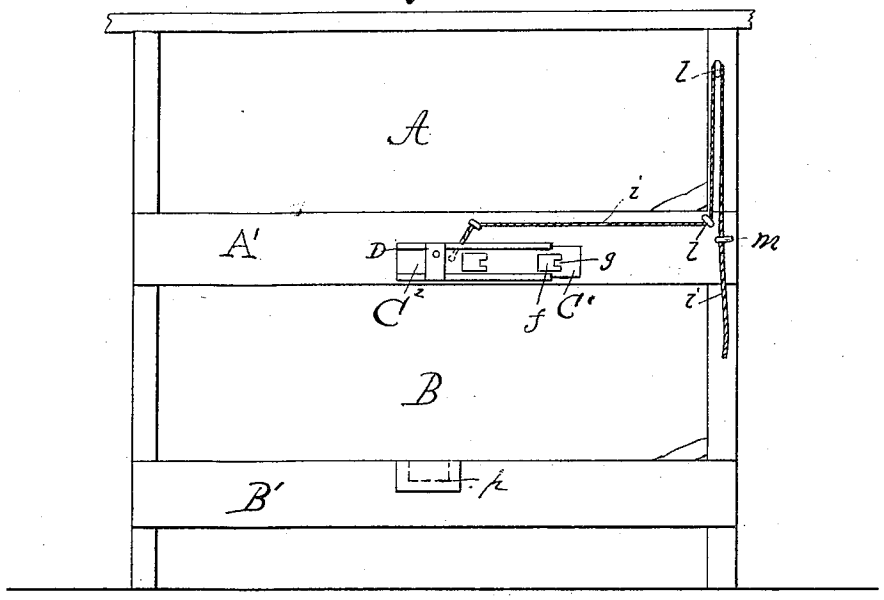
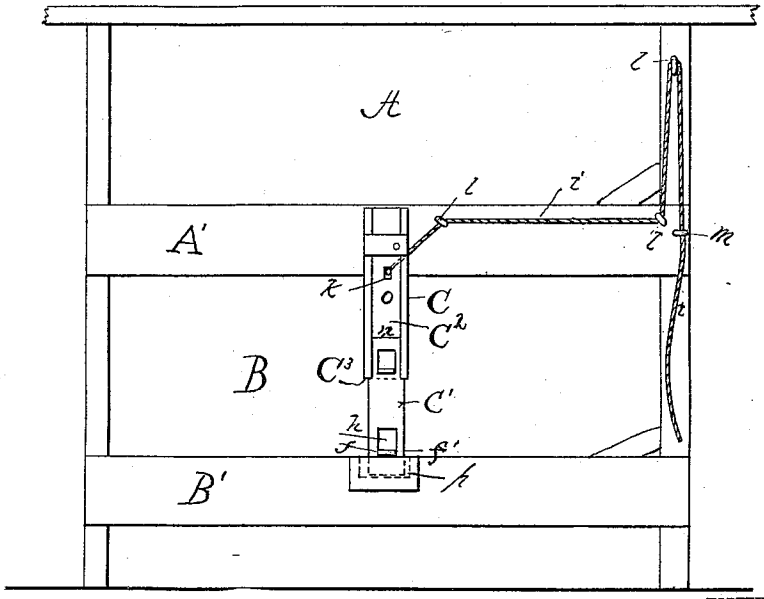


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SLEEPING-CAR BERTH.

SPECIFICATION forming part of Letters Patent No. 262,329, dated August 8, 1882.

Application filed December 31, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. STONE, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Sleeping-Berths; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to sleeping-berths for railroad-cars, ships, or other public conveyances, and especially for means for giving access to the upper berth, where two or more berths are used, one above the other, to a section or room.

It has been common heretofore to use an ordinary step for the purpose named, particularly in railroad-cars; but since it is necessary to move the ladder from place to place the occupant of the berth is usually left without a means of egress, and is dependent upon the porter to bring the ladder whenever it is required. To remove this manifest disadvantage of the upper berths is the object of my invention, which consists in combining with a berth a step-ladder which is permanently connected to the side rail of the berth and constructed to fold up alongside of such rail, as hereinafter set forth in detail.

This invention is illustrated in the accompanying drawings, in which Figure 1 is a side view, showing the ladder in an upper position. Fig. 2 is a similar view, showing the ladder in a position for use.

The letter A designates the upper berth, and B the lower berth, of a car-section or state-room, and C a step-ladder combined with the upper berth according to my invention. This ladder is constructed in sections C′ C^2, two or more sections being used, of approximately equal length, one sliding in a guide, D, which is swiveled to the side rail, A′, of the upper berth by means of a pivot, *e*, and the other or lower section sliding in guideways C on the first or upper section, in telescopic fashion, the guide thus constituting a means for permanently connecting the ladder to the berth. The lower section, C′, carries the steps *f* of the ladder, which are hung on pivots *g* in openings *h* formed in such section, these openings being equal or greater in size to the stops, respectively; but the steps may be placed on any or all of the sections, if necessary. To the lower section, C′, and near the lower terminal thereof, is connected a rope or chain, *i*, which thence extends through a hole, K, formed in the upper section, C^2, at or near the middle thereof, thence over suitable pulleys, *l*, to a hook, *m*, forming a holder. Each of the steps *f* is provided with a radial toe or trip-cam, and the lower ladder section, C′, is provided with a lip, *n*, at its upper end, forming a stop, while the upper ladder is constructed with a space, *o*, back of its guideways C, of sufficient width to allow the passage of the bearings *g* of the step-pivots.

The side rail, B^2, of the lower berth is provided with a socket, *p*, forming a stop for the lower ladder-section, C′, as next described.

When it is desired to use the ladder the rope *i* is set free, whereupon both ladder-sections descend by their inherent gravity until the lower section meets the stop-socket *p* and the lip *n* of the upper section strikes the upper edge of the guide D, bringing the whole to the position shown in Fig. 2. If the rope *i* is now pulled upon, the lower ladder-section, C′, slides up into the upper section, C^2, and then the upper section swings on the guide-pivot *e*, together with the guide D, to a position substantially parallel with the side rail, A′, of the the upper berth and alongside of such rail, as shown in Fig. 1. As the lower ladder-section slips upward the trip-cam *f′* of the steps respectively strike the lower edge of the upper ladder-section, C^2, and by this means the steps are folded up into the openings *h*. Then by fastening the rope *i* to the holder *m* the ladder-sections are firmly retained in their upper and folded position.

The construction of the ladder, however, can be modified in various ways, which will readily suggest themselves to a skilled mechanic, and in some cases the ladder may be combined with the lower berth as well as the upper berth. The stop *p* for the lower section, C′, moreover, can be made a fixture of such section.

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

1. The combination, substantially as hereinbefore set forth, of the upper ladder-section, C^2, its stop n, the swiveled guide D for such section, the lower ladder-section, C′, sliding in the upper section, the folding steps, their trip-cams, and the stop for the lower section, as specified.

2. The combination, substantially as hereinbefore set forth, of the retaining-cord i, its guides, and the holder m with the upper ladder-section, C^2, its stop n, the swiveled guide D for such section, the lower ladder-section, the folding steps, their trip-cams, and the stop for the lower section, as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of December, 1881.

HENRY A. STONE.

Witnesses:
FRANCIS CLARE BOWEN,
EDGAR GARRETSON.