(No Model.)

H. S. BILLINGS.

BERTH GUARD FOR SLEEPING CARS.

No. 272,520. Patented Feb. 20, 1883.

Fig: 1

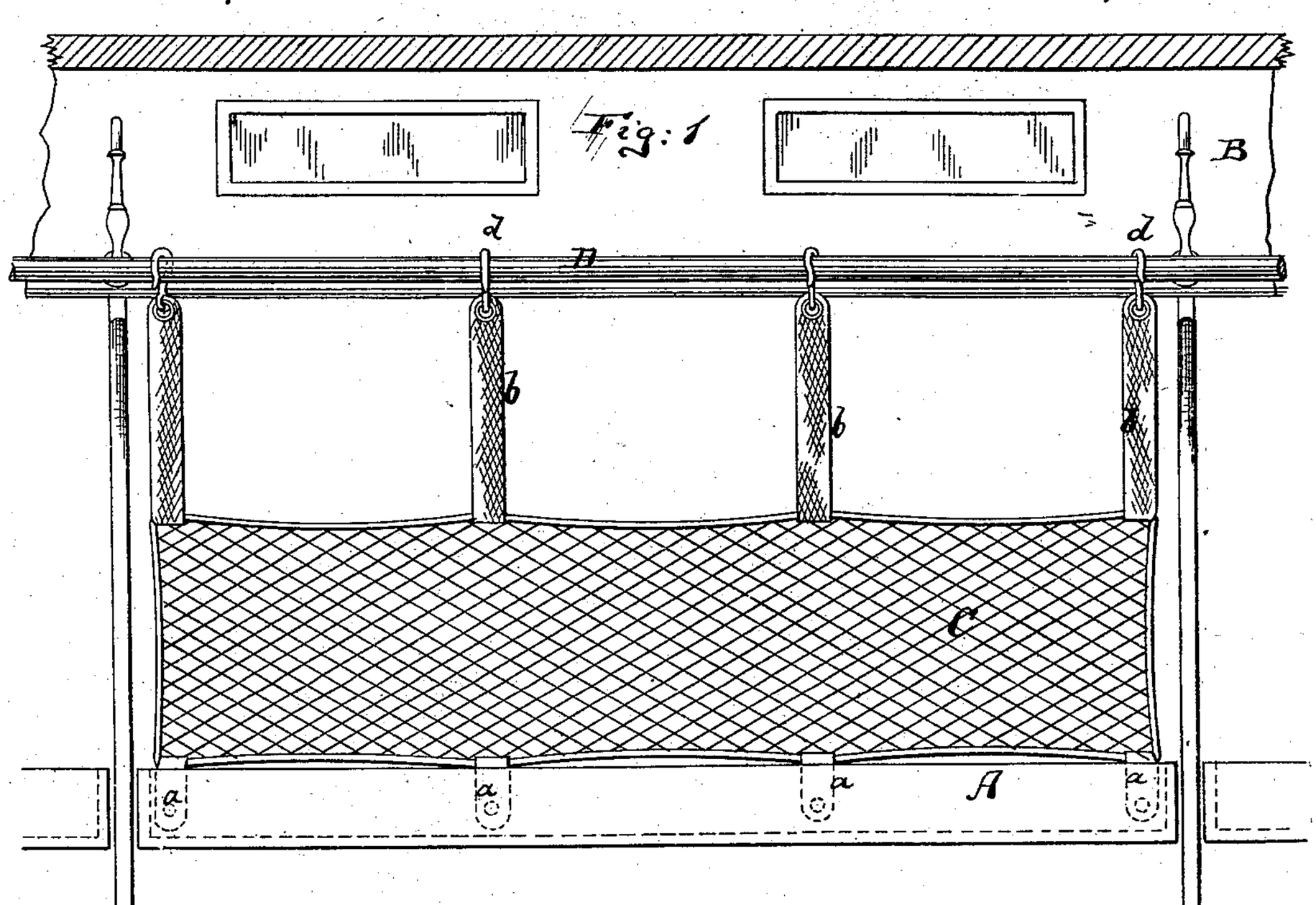
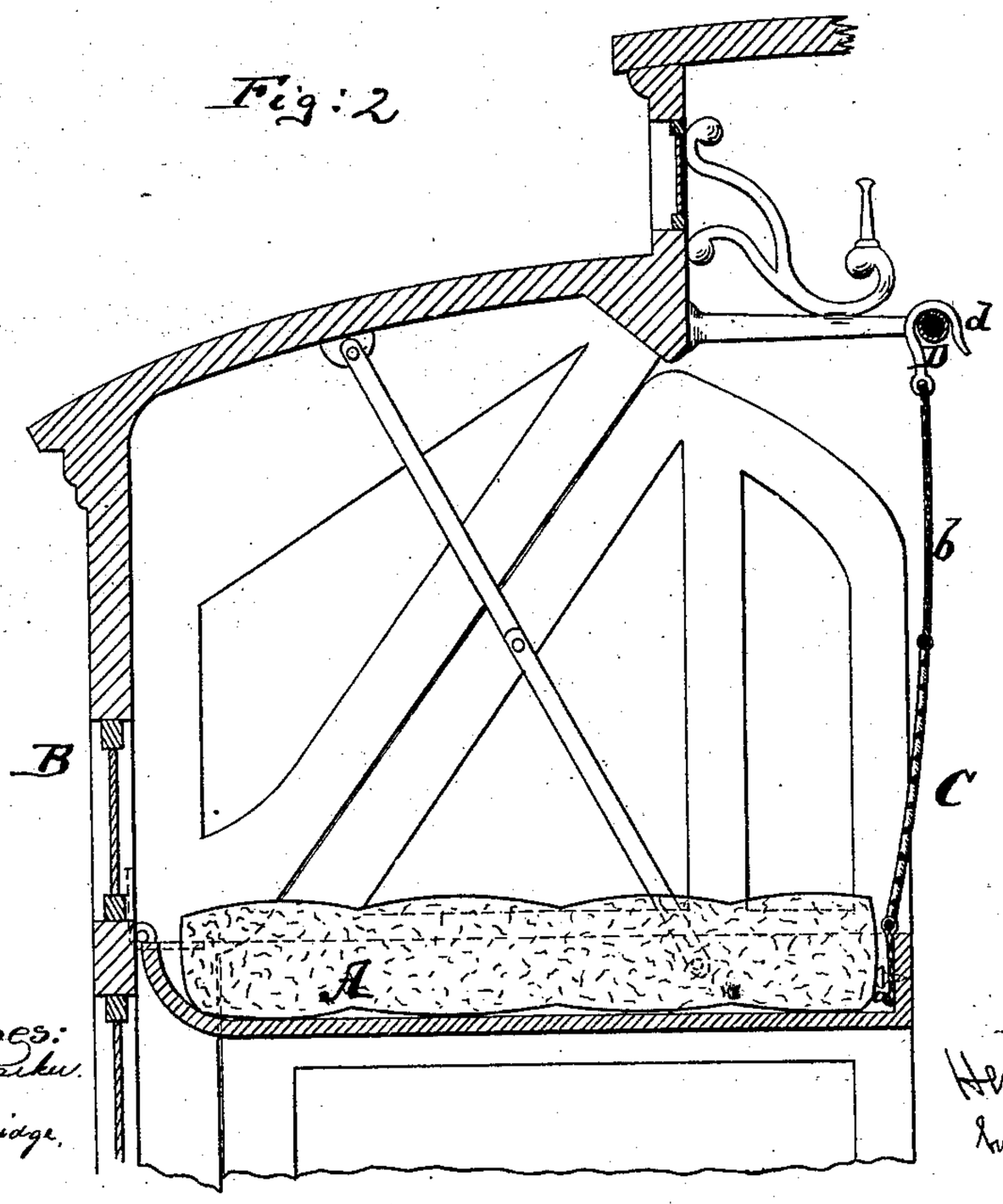


Fig: 2



Witnesses:
Henry F. Parker.
John C. Tunbridge.

Inventor:
Henry S. Billings
by his attorneys
Briesen & Betts.

UNITED STATES PATENT OFFICE.

HENRY S. BILLINGS, OF HORNELLSVILLE, NEW YORK.

BERTH-GUARD FOR SLEEPING-CARS.

SPECIFICATION forming part of Letters Patent No. 272,520, dated February 20, 1883.

Application filed February 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. BILLINGS, of Hornellsville, in the county of Steuben and State of New York, have invented a new and Improved Guard for Berths of Sleeping-Cars, Ships, &c., of which the following is a specification.

Figure 1 represents a face view of my improved guard; and Fig. 2 is a cross-section of a berth provided with said guard.

The object of this invention is to produce a flexible guard, more particularly for upper berths of sleeping-cars, steamships, and the like, which guard is to prevent the occupants of such berths from falling out during any violent oscillation of the car or ship, and which nevertheless shall be so applied as to permit the occupant of the berth to readily leave the same when desired. Moreover, the guard requires to be so arranged that it can be easily folded up out of the way when the berth is not used and before the occupant is in the berth. These ends are all attained by a flexible woven guard made of fabric or thin wire, which is attached to the berth, and above the berth to the ceiling or upper part of the car or ship, and one end of which guard is readily unfastened from its connection, preferably the upper end.

In the drawings, A represents the upper berth of a railway-car, B, which berth may be of suitable construction.

C is my improved guard, which is a strip of reticulated fabric, or of any other fabric, and which may also be made of thin wire or analogous flexible substance. This guard may have the length of the berth, or it may be shorter than the berth, and its height is such as to protect the occupant of the berth from falling out during the oscillation of the structure in which the berth is placed. The lower portion of the guard C is shown in the drawings to be secured to the berth A by little loops or projections and fastening-pins *a*. The upper part of the guard C connects with straps *b*, that have hooks *d* at the upper ends. These hooks can be thrown over a rail, D, which is secured to the upper part of the car; or the hooks may be fitted to any other projection of the upper part of the car or ship. In lieu of the hooks and rail, other fastenings—such as buttons and eyelets, or any other form of fastener—may be used. It will be perceived that when the hooks *d* are thrown over the rail D or its equivalent the guard C will be held in upright position, and will thus prevent the occupant from falling out. Yet the occupant can readily unfasten the hooks *d* and let down the said guard; and in case of accident he can even make his escape by climbing over the top of the guard, between the several straps *b*. The guard C, being flexible, will not strain the berth, even while the occupant may be thrown against it, and is therefore a decided improvement over rigid guards that may be arranged on the outer parts of berths, which rigid guards, when violently strained, are apt to break the outer face of the berth to or near which they are secured.

I do not limit myself to the particular means shown for stretching the guard C by means of the straps *b* and hooks *d*; nor is it necessary that the fasteners at the upper part shall be removable from the rail D or its equivalent when the guard is to be folded together, as in many cases the same purpose will be answered when the lower fastenings are made detachable from the berth or guard to allow the latter to be rolled up against the ceiling or upper part of the structure.

I am aware that leather guards with stiff top bars and hook-and-eye connections at both ends have heretofore been proposed; but a stiff bar on the guard destroys the entire flexibility, and would be very apt to be worse than no guard at all so far as protection of human beings from injury is in question. Nor do I claim guard-straps such as are shown in Patent No. 198,991; but

What I claim is—

1. The combination of a berth with a guard which is flexible throughout and extends the length of the berth, and which is attached to the outer side of the berth, and capable of being connected to the upper part of the structure in which the berth is arranged, substantially as specified.

2. The berth combined with the flexible guard C, extending the length of the berth, and having fixed fasteners *a* and detachable fasteners *b* and *d*, substantially as and for the purpose herein shown and described.

HENRY S. BILLINGS.

Witnesses:

JULIUS HÜLSEN,

WILLY G. E. SCHULTZ.