B. BURTON.
Elevated Railway.

No. 217,925. Patented July 29, 1879

Fig. 1.

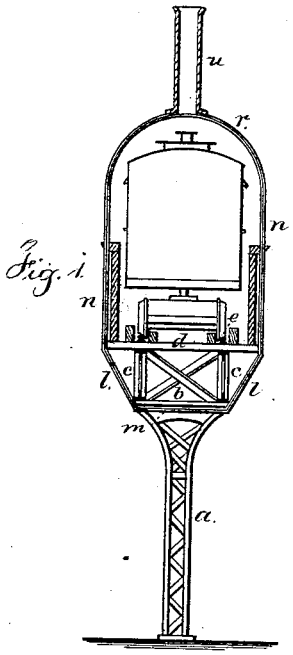


Fig. 3.

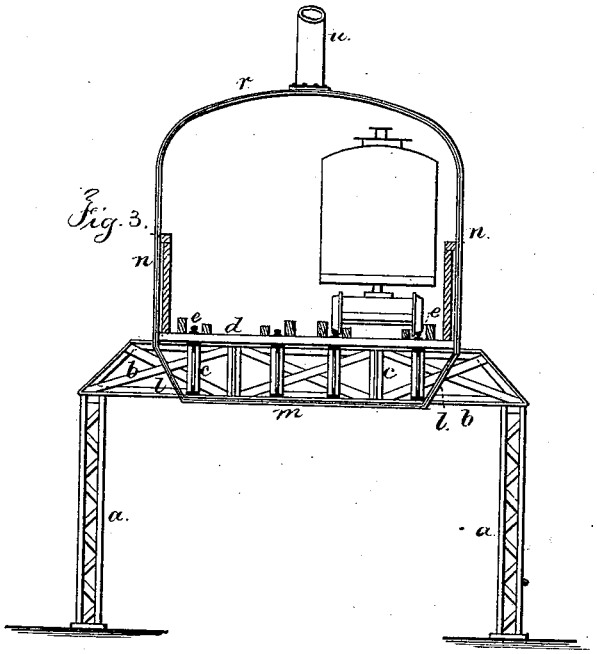
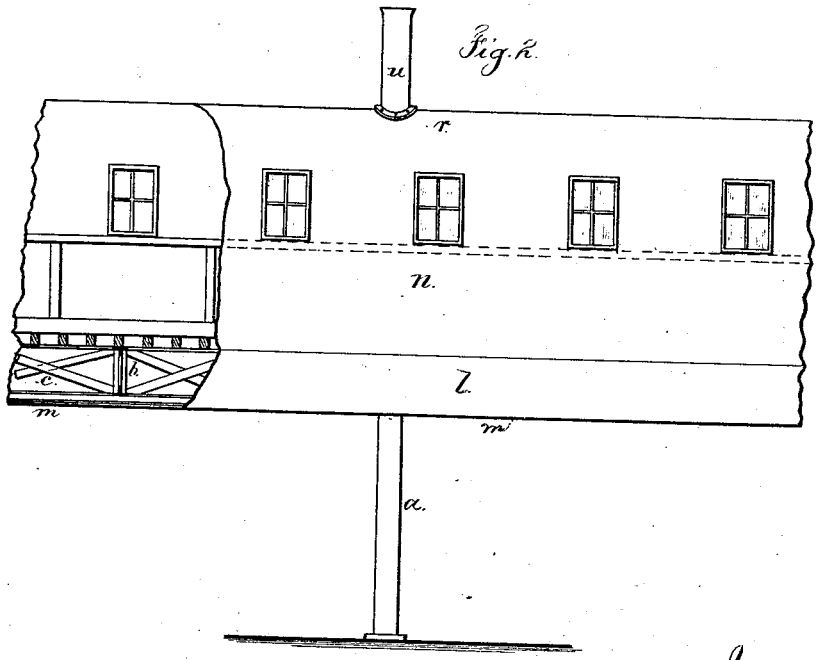


Fig. 2.



Witnesses
Chas. H. Smith
Harold Serrell

Inventor
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Atty

UNITED STATES PATENT OFFICE.

BETHEL BURTON, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN ELEVATED RAILWAYS.

Specification forming part of Letters Patent No. **217,925**, dated July 29, 1879; application filed December 23, 1878.

To all whom it may concern:

Be it known that I, BETHEL BURTON, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Elevated Railways, of which the following is a specification.

Metallic bridges have been made of a tube, within which the railway-tracks were laid; and in some instances wooden trusses have been used to form a bridge, and the same has been inclosed by exterior planking, and the railway has passed over or through such bridge.

My present invention is made with reference to preventing noise upon elevated railways in cities, and for shedding rain or snow and keeping the structure dry; and consists in combining with the trusses and beams of the structure a casing that is below and at the sides of the trusses and beams, so as to inclose the same and a covering or trunk through which the trains pass, such casing and trunk being of non-sonorous material, so as not only to confine the sound from passing trains, but also to prevent the vibrations of the structure being imparted to the external atmosphere.

In the drawings, Figure 1 is a cross-section of a single-track, and Fig. 3 of a double-track, elevated railway with my inclosing-case and trunk; and Fig. 2 is a side view of a portion of the same.

The columns *a a*, cross-beams or girders *b*, longitudinal girders or beams *c*, cross-ties *d*, and rails *e* are of any usual or desired character, the whole forming an elevated railway adapted to trains that are propelled in any desired manner. The railway may have a single track in each inclosure, as in Fig. 1, or the double tracks may be within one inclosure, as in Fig. 3.

The case that incloses the roadway and structure is formed of the sides *l l* and bottom *m*. These are outside of and below the track girders and beams, and are, by preference, attached to the ends of the cross-ties, and also to the girders at suitable places, so as to stiffen the structure.

The trunk or inclosure for the cars is made of the sides *n* and roof *r*. These sides will usually be extensions of or connected to the sides *l l*, and there should be windows at suitable distances apart to admit light; and from the roof the ventilating-pipes *u* are carried up to a sufficient height to take off the smoke and gases from the train and deliver the same above the houses on either side of the railway.

The trunk and case are made of material that will not transmit sound with facility, such as sheet-iron lined or coated with felt, or two thicknesses of sheet metal with intervening felt, sheet-lead, or other non-sonorous substances.

Care is to be taken to stiffen the trunk by ribs or braces at suitable distances, to prevent injury by the action of wind or the shaking action of the train.

I claim as my invention—

The combination, with an elevated railway, of a case of non-sonorous material extending outside of and below the beams or track girders, and a trunk or inclosure of similar material above the track to inclose the passing trains, such case and trunk being adapted to confine the sound of passing trains, as set forth.

Signed by me this 14th day of December, A. D. 1878.

BETHEL BURTON.

Witnesses:
GEO. T. PINCKNEY,
GEORGE F. EDWARDS.