(No Model.) 2 Sheets—Sheet 1.

E. O. EVANS.

JOINT BOX FOR THE JOINTS OF STREET RAILWAYS.

No. 492,885. Patented Mar. 7, 1893.

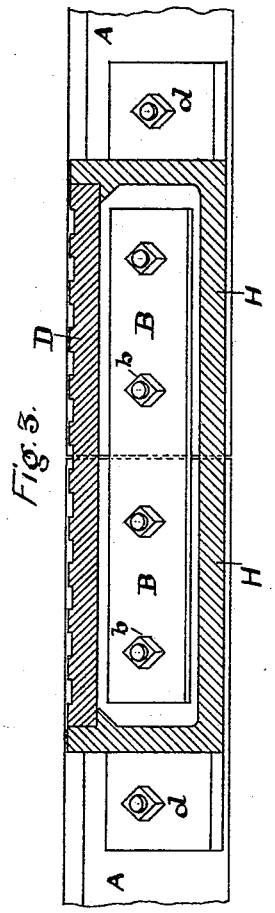

Fig. 3.

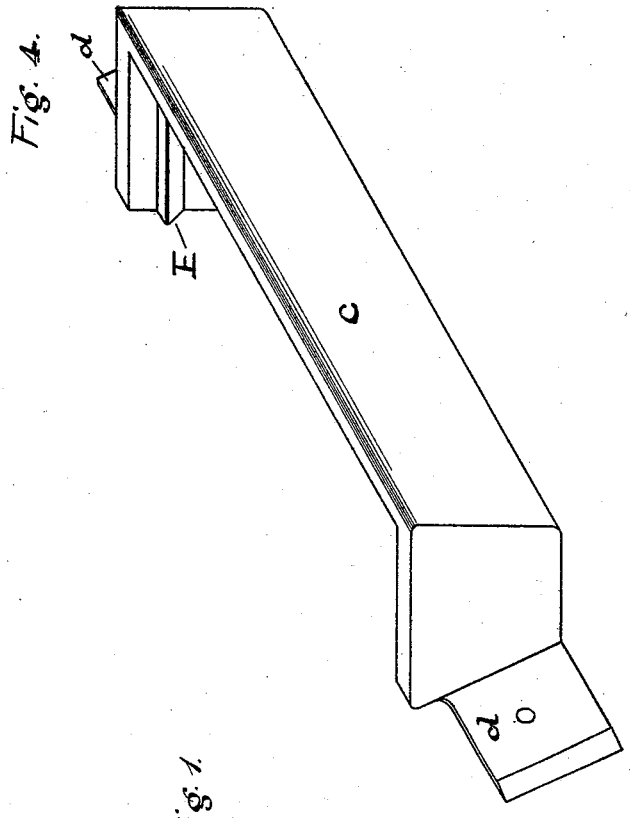

Fig. 4.

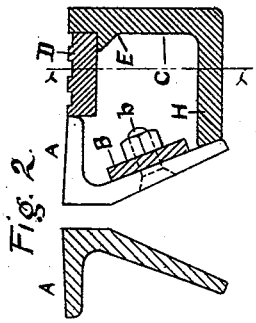

Fig. 2.

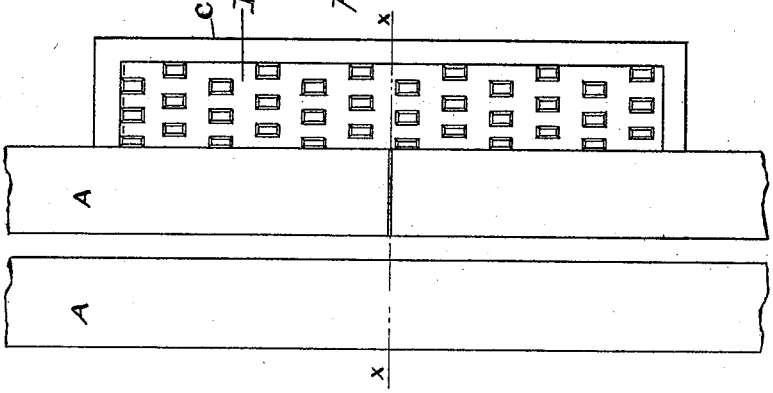

Fig. 1.

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Inventor:
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by P. H. Dorrheis
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(No Model.)

2 Sheets—Sheet 2.

E. O. EVANS.

JOINT BOX FOR THE JOINTS OF STREET RAILWAYS.

No. 492,885. Patented Mar. 7, 1893.

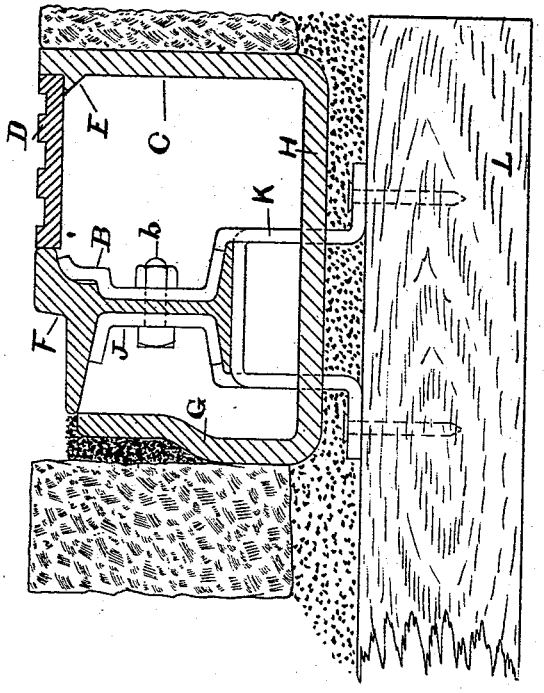

Fig. 6.

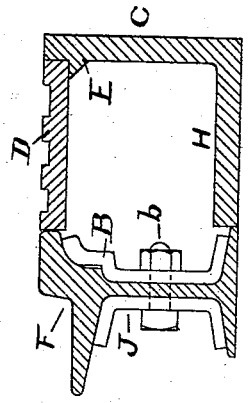

Fig. 5.

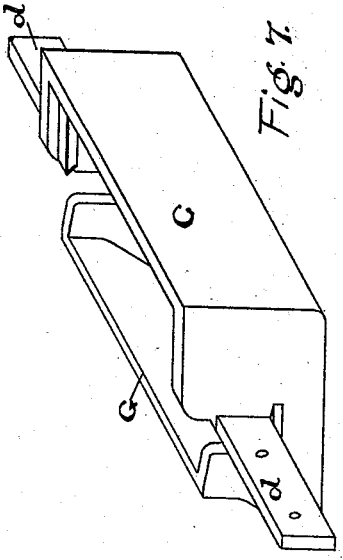

Fig. 7.

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UNITED STATES PATENT OFFICE.

ELMER O. EVANS, OF CINCINNATI, OHIO, ASSIGNOR TO THE JOHNSON COMPANY, OF JOHNSTOWN, PENNSYLVANIA.

JOINT-BOX FOR THE JOINTS OF STREET-RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 492,885, dated March 7, 1893.

Application filed September 7, 1889. Serial No. 323,292. (No model.)

To all whom it may concern:

Be it known that I, ELMER O. EVANS, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Joint-Box for the Joints of Street-Railways, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to provide means of readily reaching joints in street railroad construction. In steam railroad work all the joints are exposed and hence accessible, but in street railroad construction the joints are buried in the street in common with the rest of the construction and should a joint become loose it is not accessible without tearing up the street pavements. By the invention herein described the joints are rendered accessible without the necessity of so tearing up the pavement.

In the accompanying drawings Figure 1, is a view in plan showing a slot-rail-joint of a cable road with the joint-box, forming the subject of this invention, in position. Fig. 2 is an end view, partly in cross-section, taken through Fig. 1 at the line *x*, *x*. Fig. 3, is a longitudinal view, partly in section, taken through Fig. 2, at the line *y*, *y*. Fig. 4, is a perspective view of the joint-box, or casing, detached. Fig. 5, is an end view of a girder-rail-joint, showing the rail and joint-box in cross-section. The nuts on the joint-bolts, being set up from the interior of the joint box, are thus at all times accessible. Fig. 6, is an end-view partly in section of a girder-rail-joint provided with a box which incloses the whole joint, the rail shown in cross-section being mounted upon a chair partly within the joint box. Fig. 7 is a perspective view of the joint-box shown in Fig. 6, detached.

In said figures the several parts are indicated by letters of reference as follows:—

The letters A, A, indicate slot-rails.

(Figs. 1, 2 and 3) B indicates one splice-bar bolted to the rail by bolts *b;* C one side of the joint-box and D its movable cover resting on lugs E. Said box is fastened to the rails by means of its side-lugs *d*, *d*.

The letter F, indicates a girder-rail which may be of any desired shape.

G indicates the outer side of the box opposite to C, when the box is constructed so as to reach both splice-bars as in Figs. 6 and 7. In this case the outside splice-bar J can be reached under the lower flange of the rail and between it and the bottom H of the box C. If it is desired to reach only one splice-bar the box is made more shallow and the rail forms one side to the same, as shown in Fig. 5. It is evident that when the box is designed to inclose both splice bars it may be of any depth desired.

In Fig. 6, the rail is shown seated upon a chair or support K secured to the cross-tie L. This chair is usually placed outside of the box, but, if desired, it can be located in the box through a perforation in the bottom of the same.

The advantages of the invention herein described are apparent. By simply lifting off the cover D of the box C, the splice bars can be reached and removed, or the bolts can be tightened up from the street-surface, without any disturbance of the street-pavement.

Although the joint-box is preferably bolted to the web of the rail through the lugs *d*, it is obvious that, if desired, said lugs can be dispensed with and the holding power of the pavement packed around the box relied upon to keep it in place.

Having thus fully described my said joint-box as of my invention, I claim—

1. A railroad rail-joint provided with a box or casing, adapted for access thereto, and inclosing both sides of said joint, substantially as set forth.

2. A railroad rail-joint provided with a box or casing, adapted for access thereto, and secured to the webs of the rails, substantially as set forth.

ELMER O. EVANS.

Witnesses:
F. H. STRIEBY,
I. W. CUSHING.