

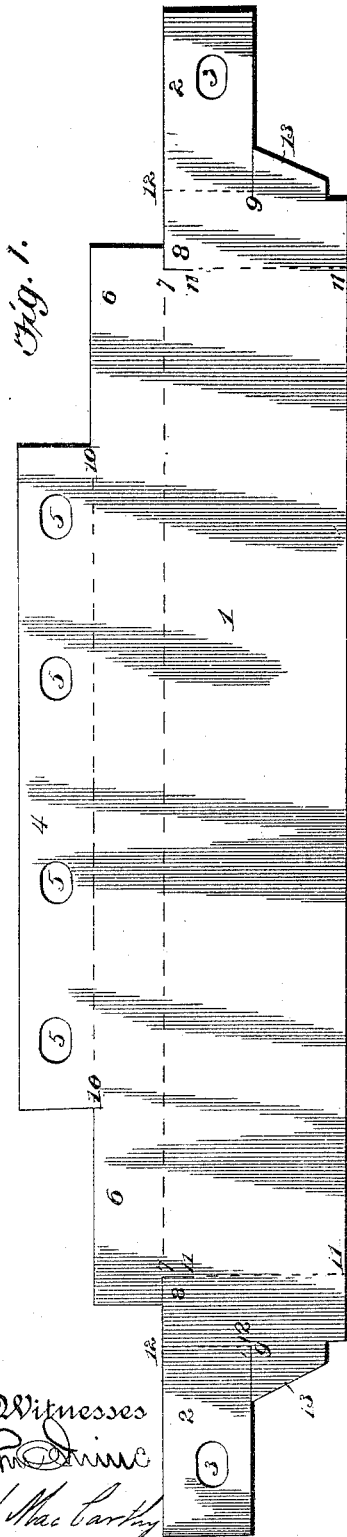
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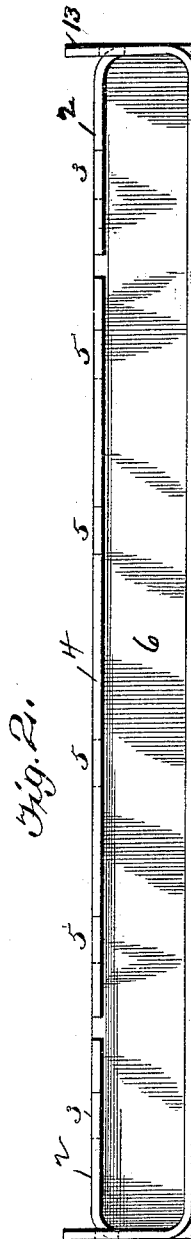
E. E. SMITH.  
BOX FOR RAILROAD JOINTS.

No. 491,787.

Patented Feb. 14, 1893.



Witnesses  
*J. M. Smith*  
*H. Mac Carthy*



*E. E. Smith*  
Inventor  
by *Price Stewart*  
Attorneys

(No Model.)

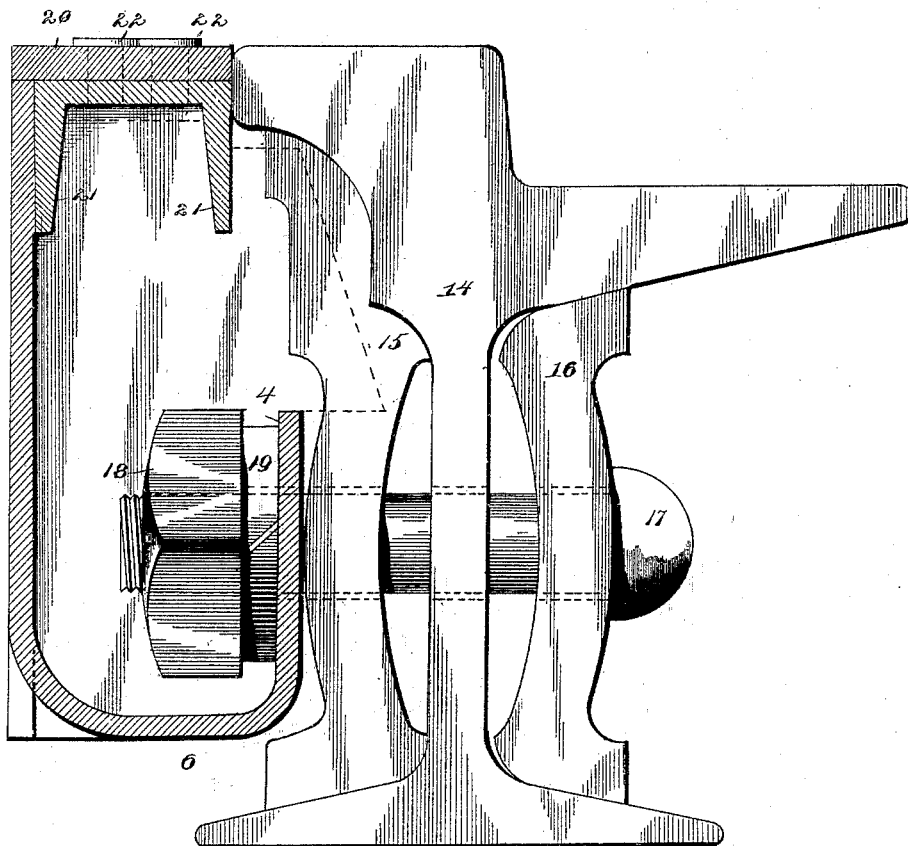
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*Fig. 3.*



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Witnesses

*John Smith*  
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# UNITED STATES PATENT OFFICE.

ELIHU ELDRIDGE SMITH, OF BALTIMORE, MARYLAND.

## BOX FOR RAILROAD-JOINTS.

SPECIFICATION forming part of Letters Patent No. 491,787, dated February 14, 1893.

Application filed October 13, 1892. Serial No. 448,784. (No model.)

*To all whom it may concern:*

Be it known that I, ELIHU ELDRIDGE SMITH, a citizen of the United States, and a resident of the city of Baltimore and State of Maryland, have invented certain new and useful Boxes for Railroad-Joints, of which the following is a specification.

My invention relates to a box to be used beside a joint in a railroad track for the purpose of covering the bolts and nuts with which the splice bars of the rails are bolted to the rails. Wherever rails are joined by splice bars or fish joints held together by bolts, it is necessary from time to time to tighten the nuts upon the bolts for the reason that the jar of travel over the rails and the expansion and contraction of the metal will loosen the nuts and weaken the joint. In a city where the surface of the street must be maintained and a T-rail is buried below the surface, it is necessary to provide some form of box beside the rail into which the nuts and bolts will project. This box must have a removable cover so that the nuts may be gotten at to tighten them. Various forms of boxes have been used heretofore.

My invention consists of a box made of a sheet of metal having flanges which are perforated and bent upon themselves so as to be secured to the rail by the bolt.

In the drawings Figure 1 is a plan of the flat plate of metal from which my box is made. Fig. 2 is a top view of the box with the cover off. Fig. 3 is a vertical section of the rail, splice bars and box showing the bolt in position and the nut projecting within the box. Fig. 4 is a top view of the cover of the box.

In the drawings similar letters of reference indicate similar parts in the various figures.

1 is a plate of metal of which the box is formed. It is provided on either end with projecting lugs 2—2, which are perforated with slotted holes 3—3. On one side is a projection 4 in which four slotted holes are punched 5—5—5. The projection 4 is of unequal length at the side of the plate, the portion in which the holes are being shorter than the portion nearer the center of the plate, which is marked 6—6. This portion 6—6 forms the bottom of the box when the plate is folded and in order

that the curved corner formed by the bending of the plate on the line 7—7 may give the portion 6—6 a proper width, slits 8—8 are cut into the plate so that the lugs 2—2 when folded will remain vertical. On the upper side of the lugs 2—2 the plate is slit backward toward the center for some distance in the line 9—9, and the plate from the beginning of the slot 9 to the outer edge of the plate is beveled. When the plate is folded to form the box as shown in Figs. 2 and 3, the projection 4 is bent up to a vertical position on the line 10—10.

6—6 constitutes the bottom and the main portion of the plate is bent into a vertical position parallel to 4 on the line 7—7. The ends of the plate 2—2 are then folded to a right angle with the sides in the lines 11—11 and the ends of 2—2 are then turned back so as to occupy a position in the same plane with the side 4. This bend is made in the lines 12—12. In making this bend the projections 13—13 are left projecting in a plane parallel to the ends of the box. The box is thus formed as shown in Fig. 2 and the holes 3—3 and 5—5—5 are brought into the same plane.

Referring to Fig. 3, 14 is the rail; 15 is the exterior splice plate; 16 the interior splice plate; 17 the bolt passing through them; 18 the nut screwed upon the end of the bolt, and 19 a nut block ring. The holes 3—3 and 5—5 are arranged so as to register with the holes through the rail and splice bars. When the box is placed in the position shown in Fig. 3, the bolt 17 may then be passed through the splice bar and rails and through the holes 3 and 5 through the turn in sides of the box and the nuts placed in position and screwed up upon the bolts. The box will then be held firmly in place against the splice bar. 20 is the cover of the box which is provided on its under side with a U-shaped piece having flanges 21—21. The top of the box rests upon the outside edge of the box and upon its ends and is supported thereon and bears against the outside of the rail. The downwardly projecting flanges 21—21 on the underside of the cover enter the top of the box and hold the cover firmly in place thereon.

The top surface of this box may be provided

with the studs 22—22 of any desired shape so as to roughen it, or it may be rolled with a roughened surface.

What I claim and desire to secure by Letters Patent is:

1. A box for covering the bolts of a railroad splice joint which consists of a plate of metal one side and the ends of which are bent in upon the plate so as to form a box, the bent side being perforated with holes which register with the holes of the splice joint and through which the bolts of the splice joint may pass to hold the box firmly in position against the side of the rail.
2. A box for covering the bolts of a railroad

splice joint which consists of a plate of metal one side and the ends of which are bent in upon the plate so as to form a box, the bent side being perforated with holes which register with the holes of the splice joint and through which the bolts of the splice joint may pass to hold the box firmly in position against the side of the rail, and provided with a cover fitting into the top of the box to close the same.

Signed at Baltimore city and State of Maryland this 30th day of September, A. D. 1892.

E. ELDRIDGE SMITH.

Witnesses:

RICHARD I. WILSON,  
JNO. T. MADDOX.