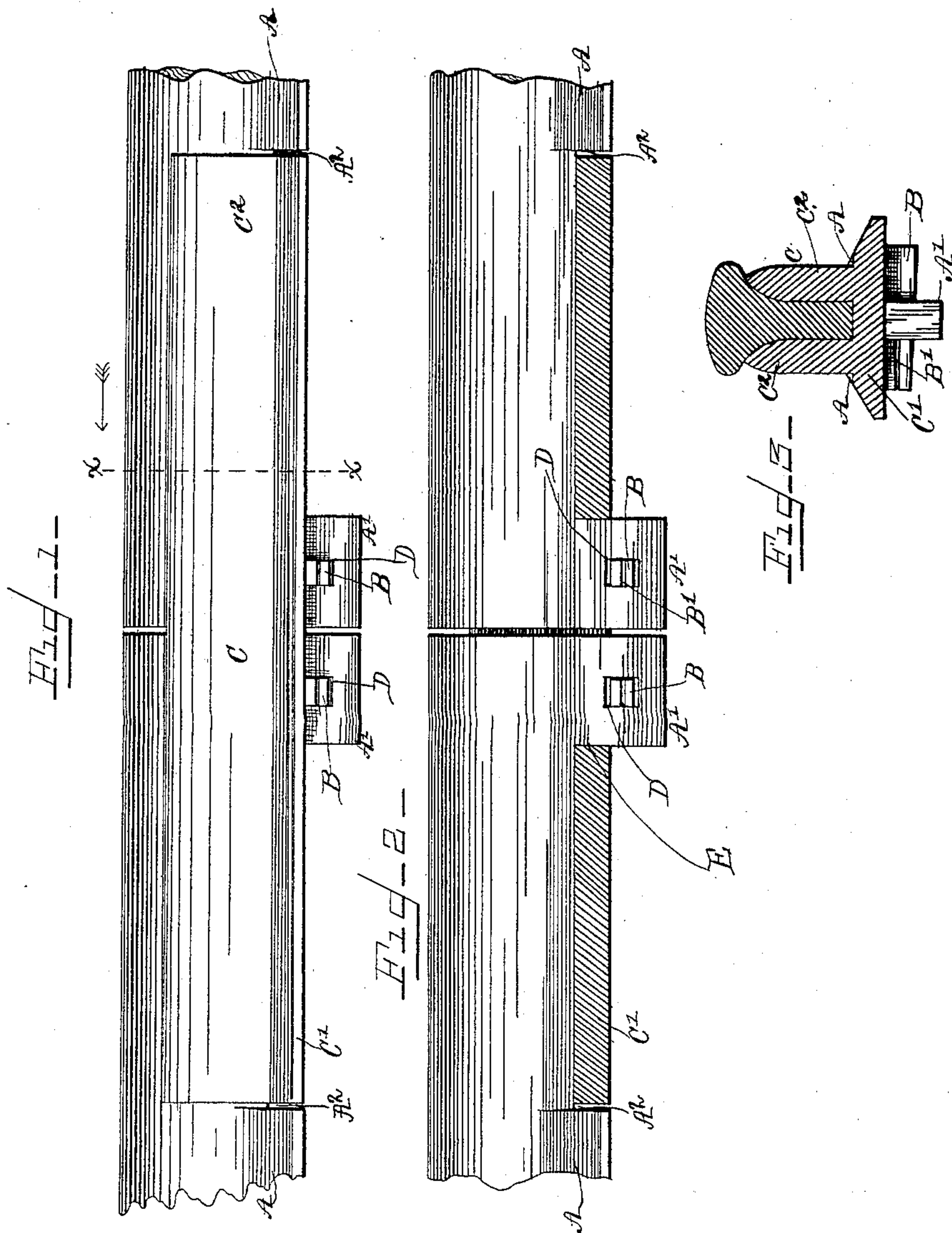


(No Model.)

A. H. PILAND.
RAILROAD RAIL JOINT.

No. 359,175.

Patented Mar. 8, 1887.



Witnesses

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By his Attorney

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UNITED STATES PATENT OFFICE.

AUGUST H. PILAND, OF HENDERSON, KENTUCKY, ASSIGNOR OF ONE-HALF
TO GEORGE G. ELLIS, OF SAME PLACE.

RAILROAD-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 359,175, dated March 8, 1887.

Application filed May 22, 1886. Serial No. 203,004. (No model.)

To all whom it may concern:

Be it known that I, AUGUST H. PILAND, a citizen of the United States, residing at Henderson, in the county of Henderson and State of Kentucky, have invented certain new and useful Improvements in Railroad-Rail Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to
10 which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 My invention has relation to improvements in railroad-rail joints; and it consists in certain novel features, hereinafter set forth and claimed, and illustrated in the accompanying drawings, in which—

20 Figure 1 is a side elevation of my improved rail-joint. Fig. 2 is a view showing the rails in elevation and the box in longitudinal section; and Fig. 3 is a cross-section on the line *xx*, Fig. 1, looking in the direction of the arrow.

25 In carrying out my invention I use the ordinary T-rail in common use and cut away the bottom flanges, A', at each end thereof, and also cut away the bottoms of the rails, so as to form the notches A². At the ends of the rails I provide the depending lugs A', which extend a short distance below the base of the rails, and have transverse passages D, through which wedge-shaped keys
35 B are passed in operation, as will be understood from the drawings. I also provide a box, C, within which the ends of the rails rest and are secured. This box has a base, C', which is of the same width as the base of the rails, and corresponds in cross-section to the flanges and base of the rail. The sides C² of the box extend up to the T-head of the rail, and are placed at a proper distance apart to fit snug against the rail. The upper edges
40 of the sides C² are made convex, so as to coincide with the under concavity of the head of the rail. The bottom of the box is provided with a longitudinal slot, E, midway its ends, through which the lugs A' pass. I have
50 shown the key B as provided with a slit, B',

in its smaller end. By bending the split end of the key at a sharp angle or spreading the two parts the key will be held against withdrawal, as will be understood.

In operation the box is secured to the ties 55 by spikes in the same manner as the rails. The ends of the rails are then placed in position in the box, the depending lugs A' being inserted through the slot E in the box, and the base of the box fitting into the notches 60 A² in the bottom of the rail, thus securing a snug solid joint. The keys are inserted through the passages in the depending lugs. By forcing the key through the passage the rails will be firmly secured, as will be under- 65 stood. The portions of the rails between the ends are secured to the ties by spikes in the usual manner.

From the foregoing description it will be seen that I have provided a cheap, simple, 70 and efficient rail-joint, which requires no bolts and nuts, the advantages of which are obvious. It may sometimes, however, be desirable to dispense with the lugs and keys and use bolts passed through the sides of the box 75 and the rail and secured by nuts in the usual manner. Such arrangement would involve no departure from my invention; but I prefer to use the lugs and split keys.

Having thus described my invention, I claim 80 as new and desire to secure by Letters Patent—

The herein described and shown rail-joint, comprising the following elements in combination: the rail A, having the notch A², and the depending end lug, A', having the trans- 85 verse opening D, the box having a longitudinal central slot for the passage of the lugs A', and having its main portion fitted in the notch A², and having a flanged base, C', and sides C², extending up to the head of the rail and 90 corresponding in shape thereto, and the tapered key passed through the transverse openings D below the box C, all arranged and operating substantially as set forth.

In testimony whereof I affix my signature in 95 presence of two witnesses.

AUGUST H. PILAND.

Witnesses:

B. G. WITT,

WM. H. STILES.