

W. G. COOLIDGE & E. HEMBERLE.
 Joint Connections for Top-Chords of Iron Bridges.
 No. 152,793. Patented July 7, 1874.

Fig. 1.

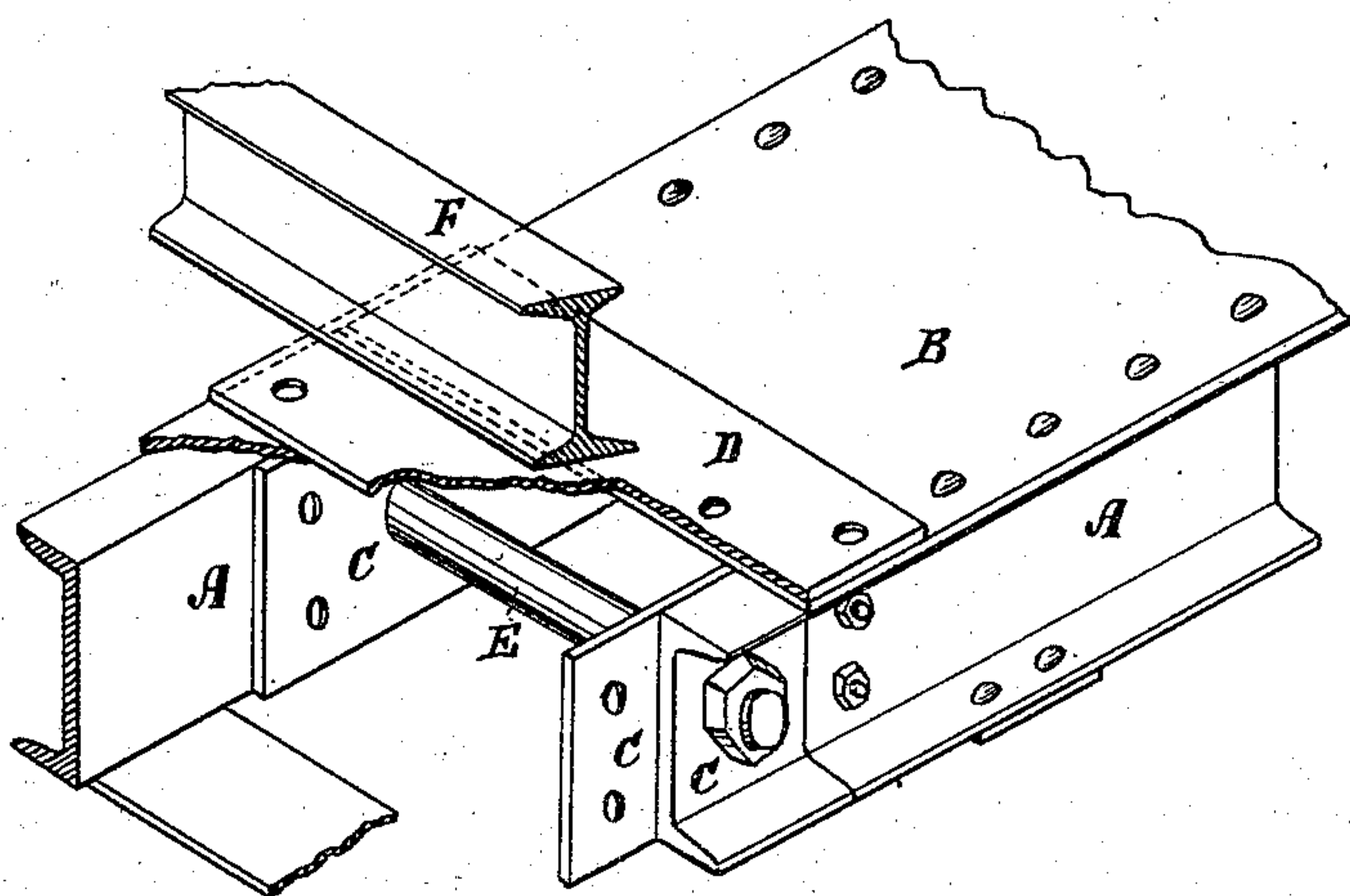


Fig. 2.

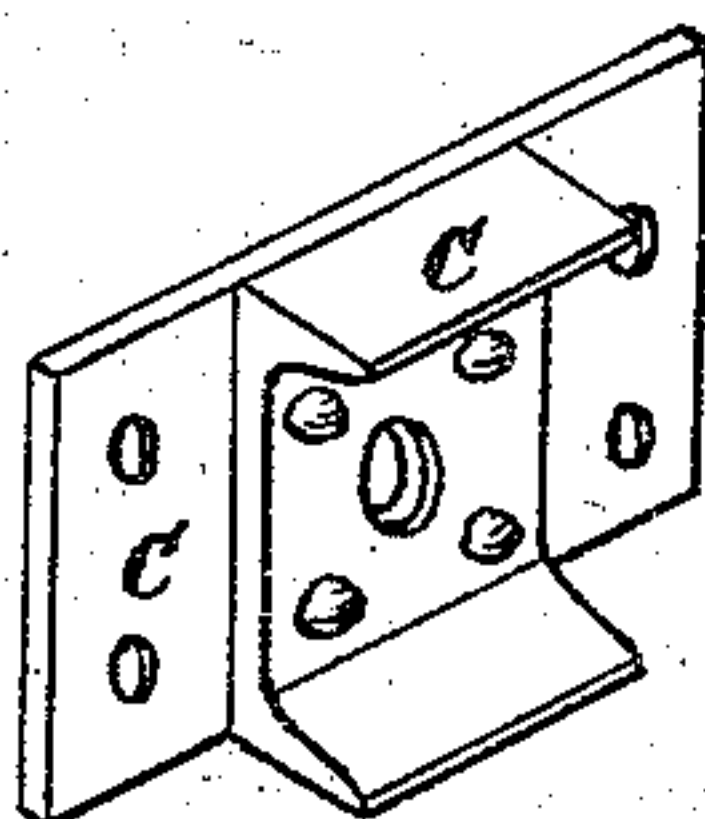
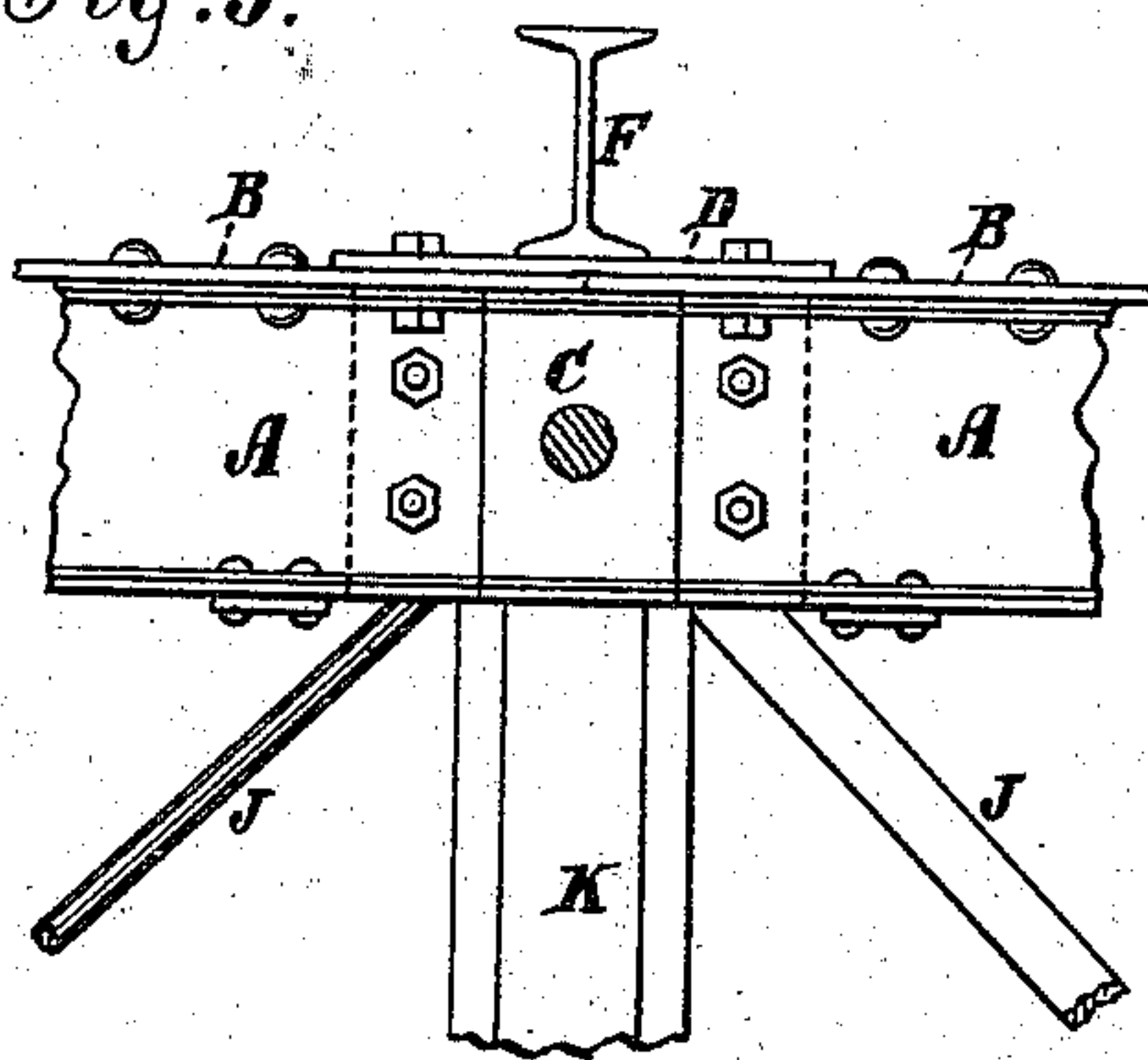


Fig. 3.



WITNESSES:

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WALTER G. COOLIDGE AND EDWARD HEMBERLE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN JOINT-CONNECTIONS FOR TOP CHORDS OF IRON BRIDGES.

Specification forming part of Letters Patent No. **152,793**, dated July 7, 1874; application filed March 21, 1874.

CASE A.

To all whom it may concern:

Be it known that we, WALTER G. COOLIDGE and EDWARD HEMBERLE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Top Chords of Bridges and other structures, of which the following is a specification:

Figure 1 is a perspective view of the top-chord connection or joint according to our invention. Fig. 2 is an isometrical view of the connecting-piece used for connecting the chords. Fig. 3 is an elevation of a section of the chord, showing the connection.

Similar letters of reference indicate corresponding parts.

The nature of this invention relates to an improved method of connecting the top chords of iron bridges. The invention consists of a peculiarly-constructed joint-piece for wrought-iron top chords in bridges having what are known as pin-connections, the joint-piece being made either of cast-iron or wrought-iron.

A A are channel-bars, which form with plates B B' panel-sections of the top chords in iron-bridge trusses. C is the joint-connecting piece, which is made either of cast-iron, as shown in Fig. 1, or of wrought-iron, as shown by Fig. 2. D is a plate, to which the top lateral strut F is to be riveted, and which covers the joint of the top plates B B', and is bolted to top-chord sections at g. The pin E, to which the ties J and post K of the truss are to be coupled, passes through the two joint-pieces C, each joint as shown by Fig. 1. The

channel-bars A A of the top-chord sections abut against the front pieces C, and are bolted to the flanges of the same. The top-plates B of the chords are to be spliced over the center of the pin E, and abut against each other.

The advantage of our top-chord connection over others known and in use consists in simplicity and cheapness of construction, and in being adapted for the construction of the top chords entirely of wrought-iron without necessitating any riveting at the place of erection; it further has the advantage of enabling the connection of ties and posts with the pin, being made independent of the top chords and the chord-sections being put on afterward, which expedites and cheapens the labor of the erection of the structure.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The joint-piece C, made of cast-iron or wrought-iron, in combination with channel-bars A to connect top chords of bridges, roofs, and other structures having pin-connections, as shown and set forth.

2. The cross-plate D, top-plates B, channel-plates A, connecting-pieces C, and pin E, combined and arranged substantially as specified.

WALTER G. COOLIDGE.
EDWARD HEMBERLE.

Witnesses:

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