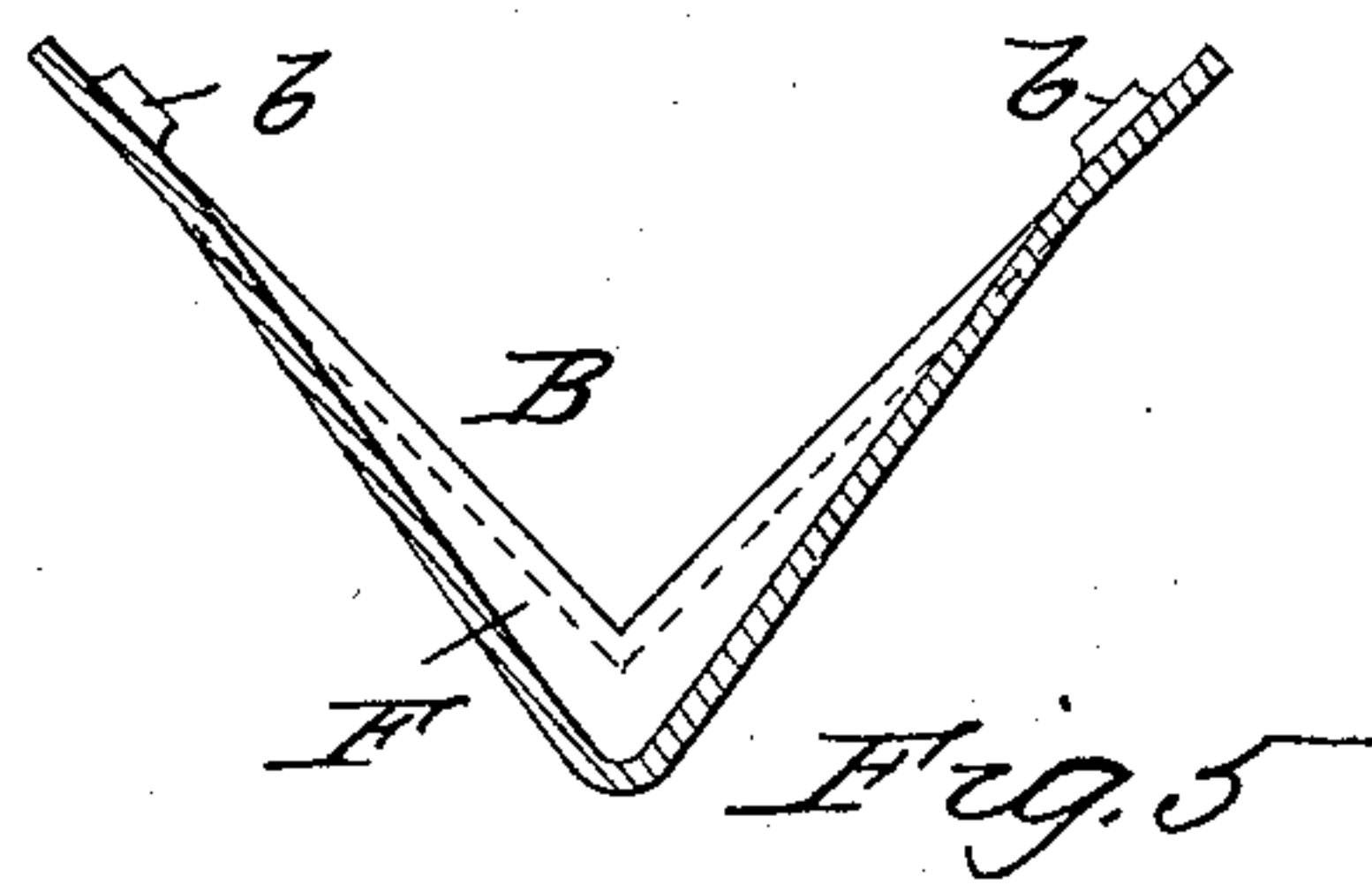
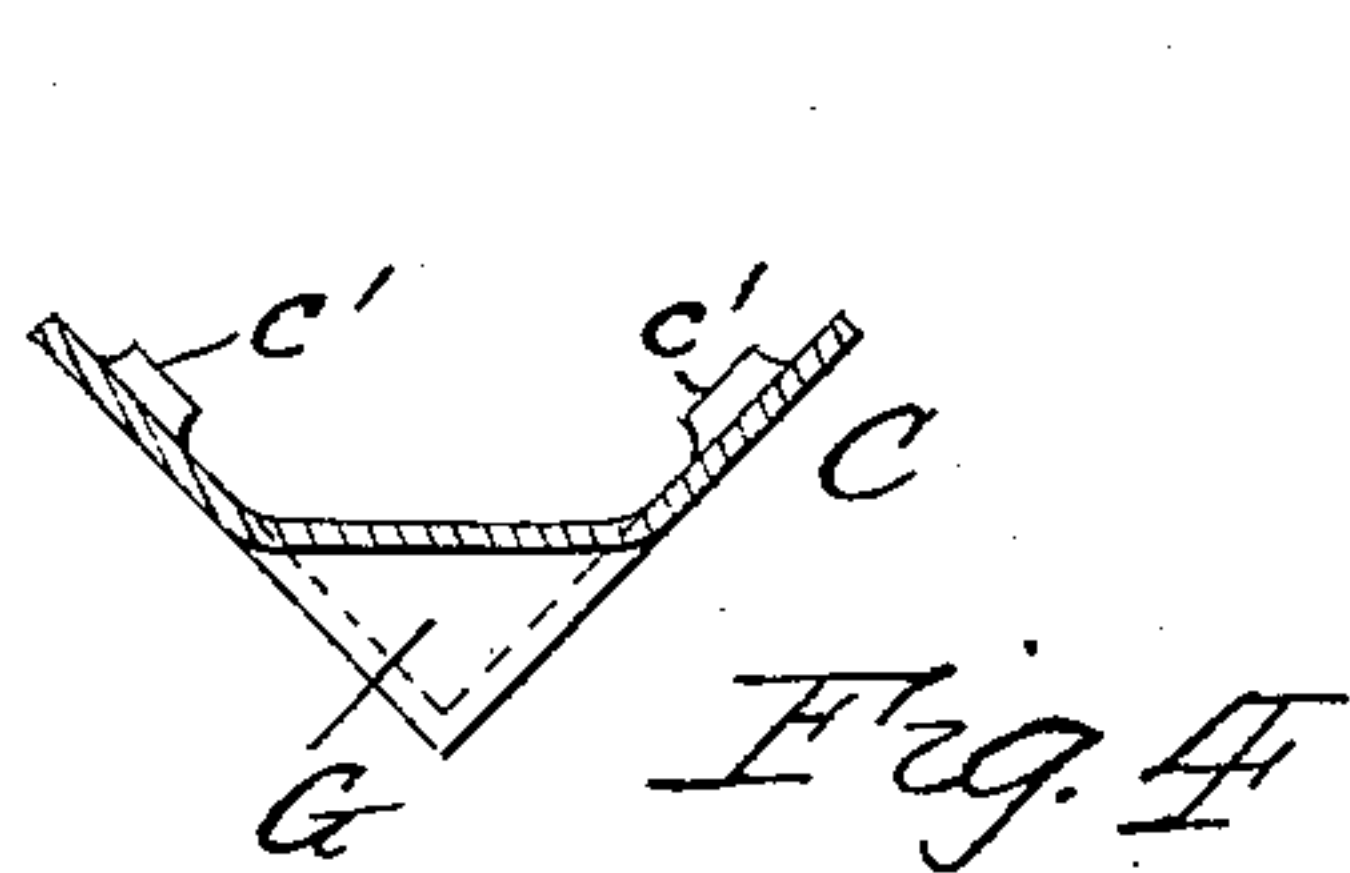
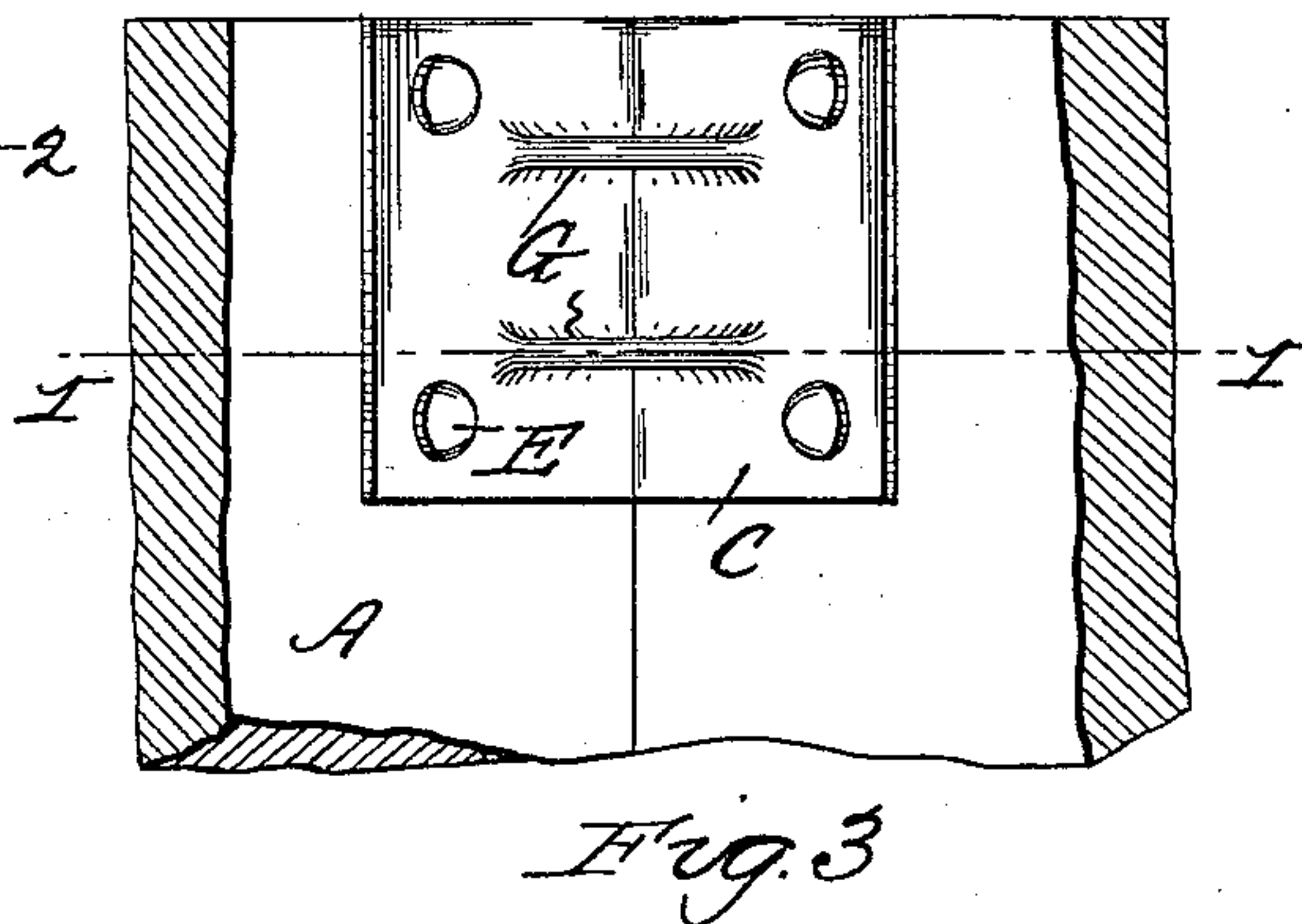
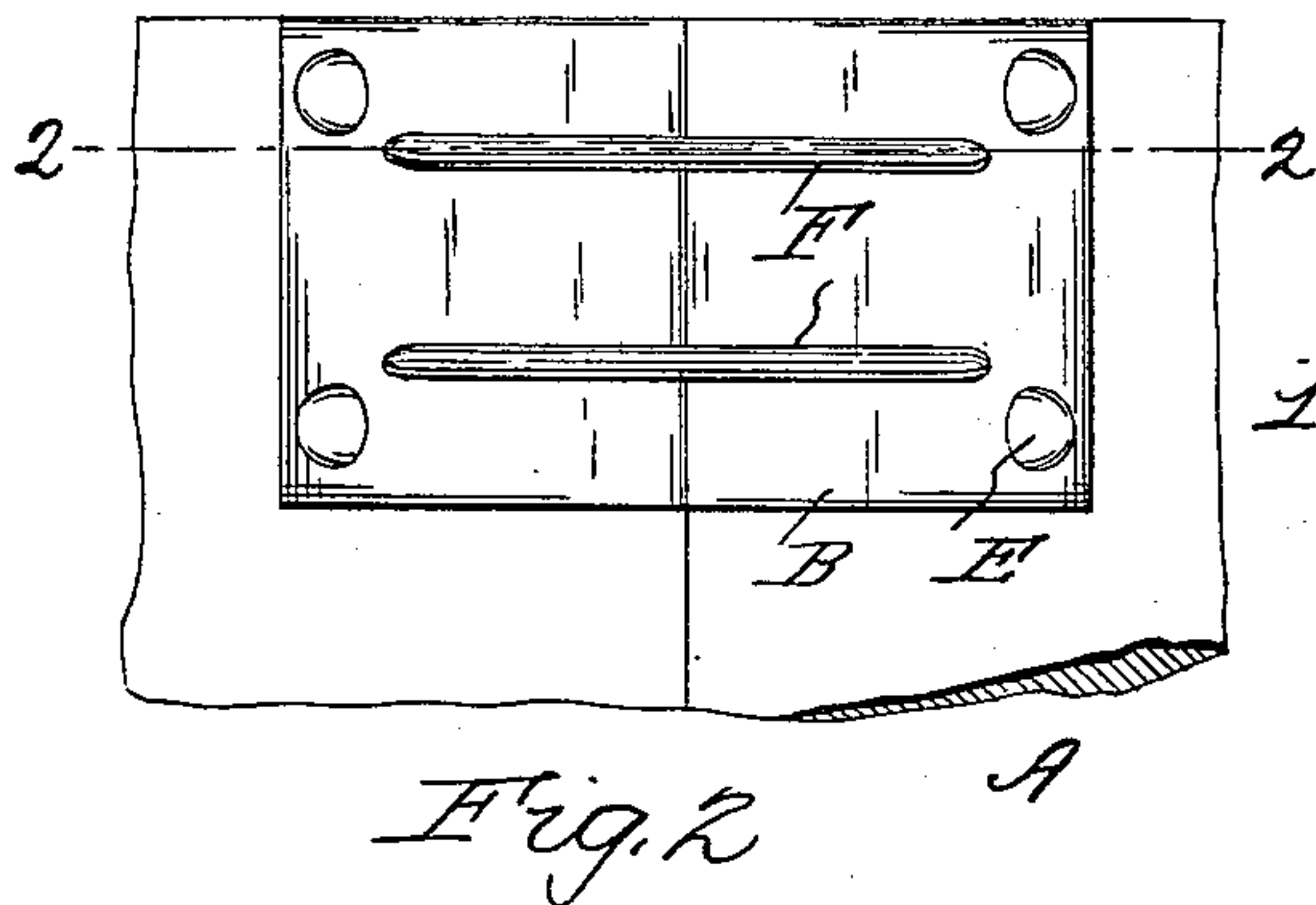
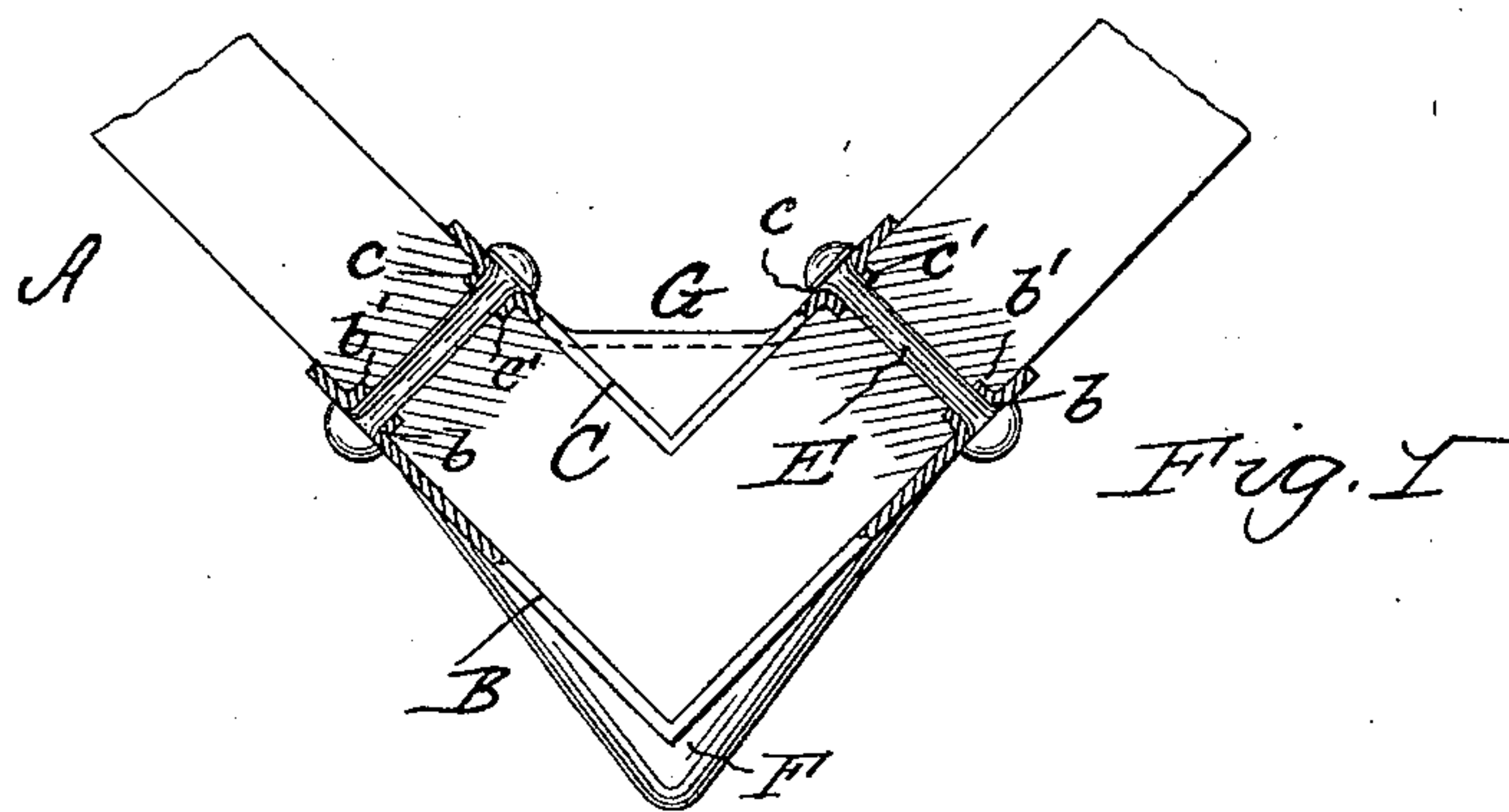


(No Model.)

J. H. EVANS.
CORNER IRON FOR CARS.

No. 451,116.

Patented Apr. 28, 1891.



WITNESSES:

John Buckley
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UNITED STATES PATENT OFFICE.

JOHN H. EVANS, OF PHILADELPHIA, PENNSYLVANIA.

CORNER-IRON FOR CARS.

SPECIFICATION forming part of Letters Patent No. 451,116, dated April 28, 1891.

Application filed April 24, 1890. Serial No. 349,266. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. EVANS, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Corner Angle-Irons for Railway and other Cars, of which the following is a specification.

My invention relates to a sheet or wrought metal angle-iron for the corners of open-top coal, freight, or other railroad-cars.

The principal object of my invention is to provide inside and outside angle-irons of particular construction and of a particular mode of connecting them to the car and together, whereby very strong and durable car-corners are obtained.

My invention consists of the construction and arrangement of corner angle-irons, such as hereinafter fully described.

The characteristic features of the invention will be more fully understood from the accompanying drawings, forming part hereof, and in which—

Figure 1 is a view, partly in section, of a corner of a car with angle-irons embodying the features of my invention shown in application. Fig. 2 is an elevation of same, showing the outside corner angle-iron. Fig. 3 is a similar view showing the inside corner angle-iron. Fig. 4 is a sectional view of the inside corner angle-iron on the line 1 1 of Fig. 3, and Fig. 5 is a similar view of the outside corner angle-iron on the line 2 2 of Fig. 2.

A represents the corner of a car-body or other device.

B is the outside corner angle-iron, and C is the inside one. The angle-irons B and C are struck up or formed from sheet rolled or wrought metal and have registering-holes *b* and *c*, respectively, punched or otherwise formed therein, so as to be flanged on one side, as indicated at *b'* and *c'*, respectively, which flanges on the different angle-irons are opposite one another in order that those on the inside angle-iron will pass into the inside wall of the car-body and those on the outside angle-iron will enter the outer walls of the car-body, as more clearly shown in Fig. 1. These flanges *b'* and *c'*, entering the car-body, serve, first, as pins for the angle-irons, and, second,

afford an extended length of bearing in the irons for bolts or rivets E, passing through the openings *b* and *c* and wall of the car-body, to fasten the angle-irons to a car-body corner and to each other.

The outside angle-iron has one or more horizontally arranged and outwardly-projecting ribs F, punched, stamped, or struck up therefrom, for stiffening and strengthening the same, which ribs are hollow and rise from a point near the ends of the angle-iron and gradually increase in depth to the corner of the iron, at which point they have their greatest depth, and they are located intermediately of the top and bottom edges of the iron, so as to stiffen it from top to bottom of its width. The inside angle-iron C is provided with similar ribs G for similar purposes, the ribs G on the iron C being on a side opposite to that upon which the ribs F are located on the iron B. The ribs G extend outwardly some distance from the corner of the iron C, or, in other words, bridge the ends of the iron approximately so as to form braces between said ends.

I do not confine myself to any particular manner of making them, because they may be upset in dies from a plain or smooth blank, or the blank may be rolled or otherwise prepared before being upset between the dies.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the car-body A, of inside and outside angle-irons B and C, formed of sheet, rolled, or wrought metal and having registering openings *b* and *c*, flanged on one side at *b'* and *c'*, and engaging in said car-body to afford extended bearing for the bolts or rivets E, the outside iron B provided with integral horizontal projecting ribs F, punched, struck up, or stamped therefrom, and the inside iron C provided with integral ribs G, bridging or bracing the ends thereof, as shown, and for the purposes described.

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

JOHN H. EVANS.

Witnesses:

FRANK H. MASSEY,
S. J. VAN STAVOREN.