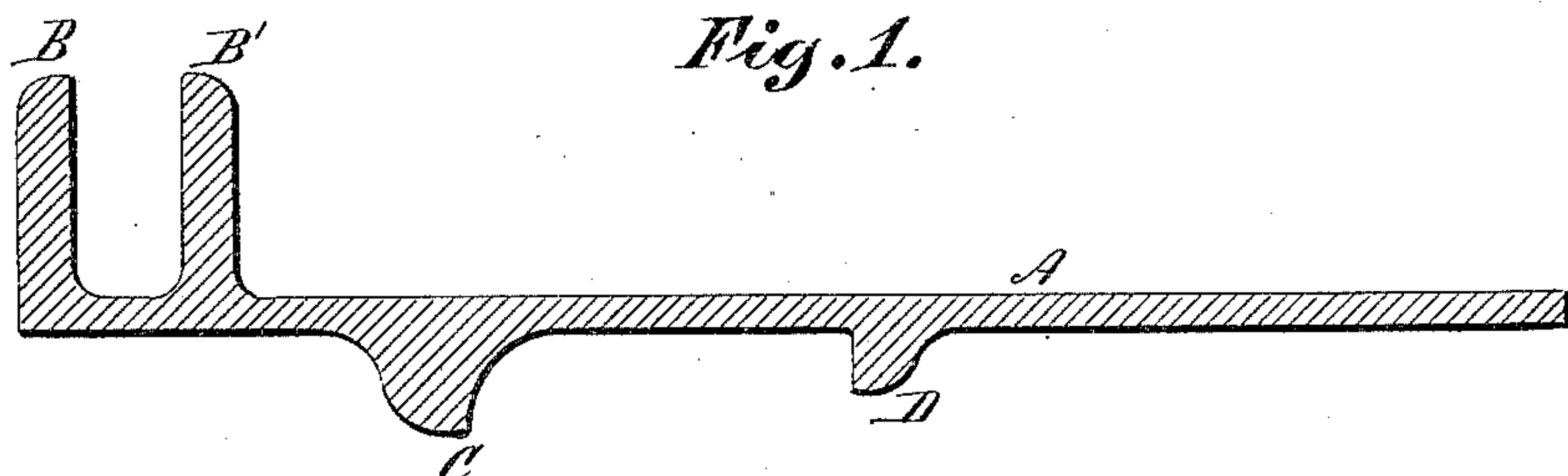


(No Model.)

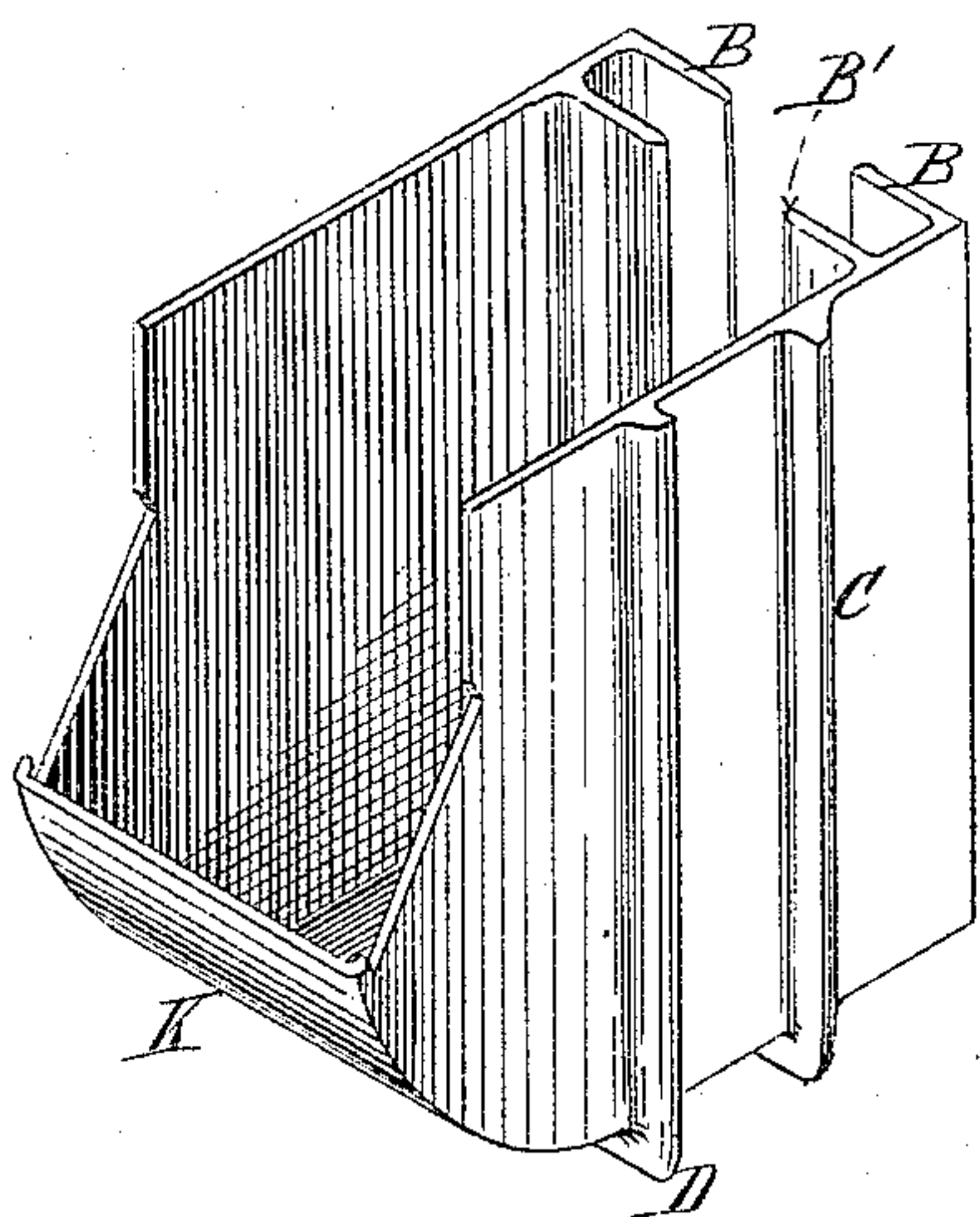
E. W. M. HUGHES.  
CAR JOURNAL BOX.

No. 436,355.

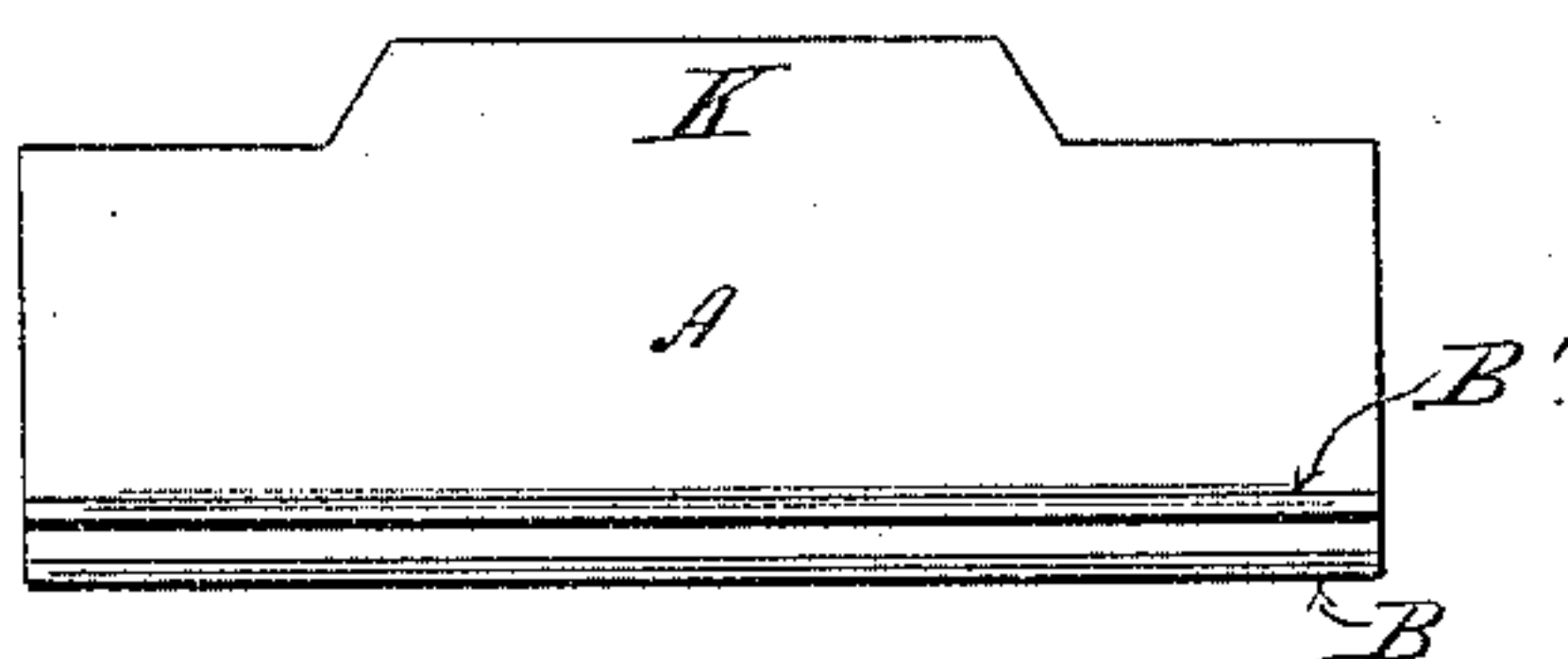
Patented Sept. 16, 1890.



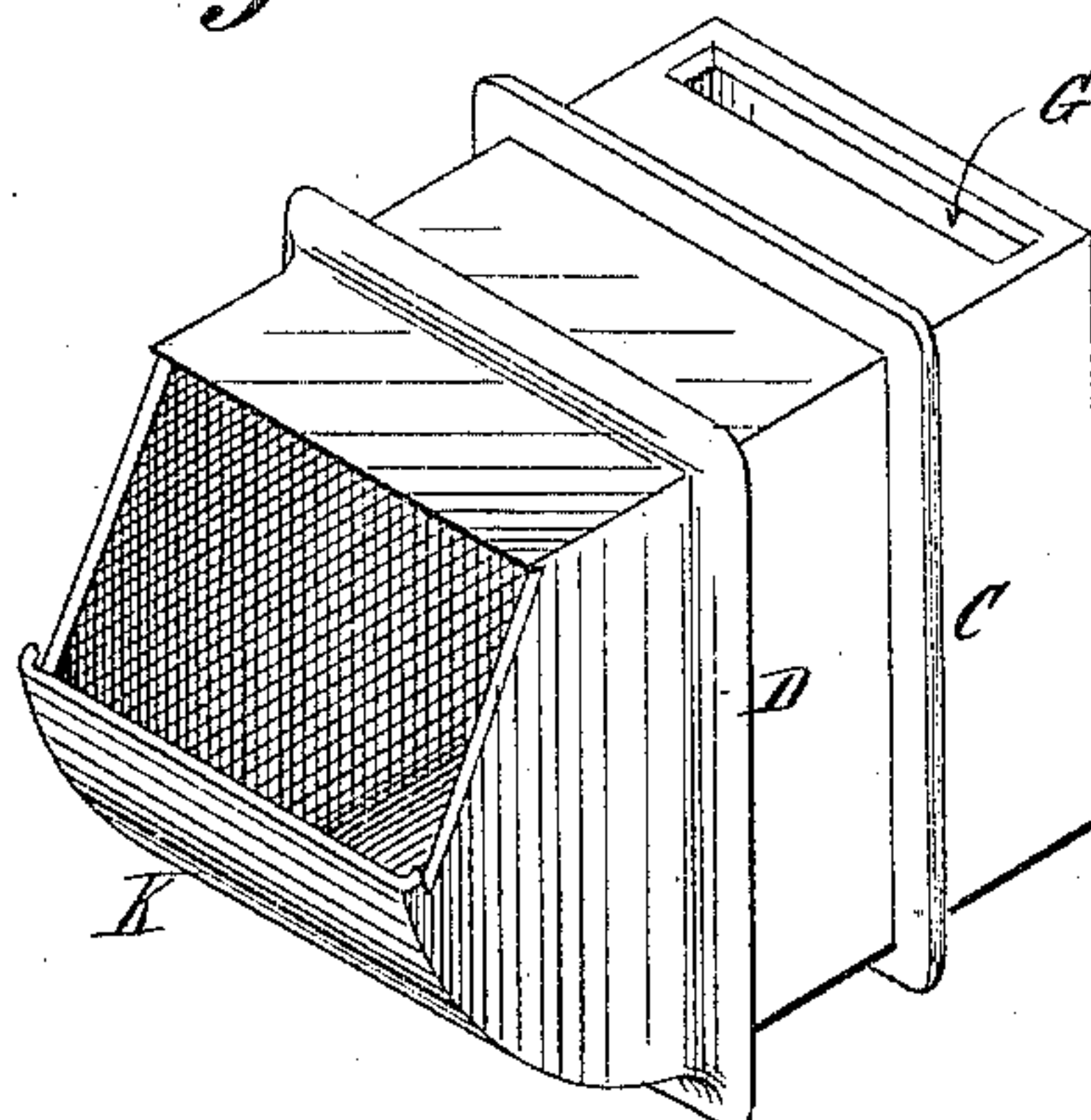
*Fig. 2.*



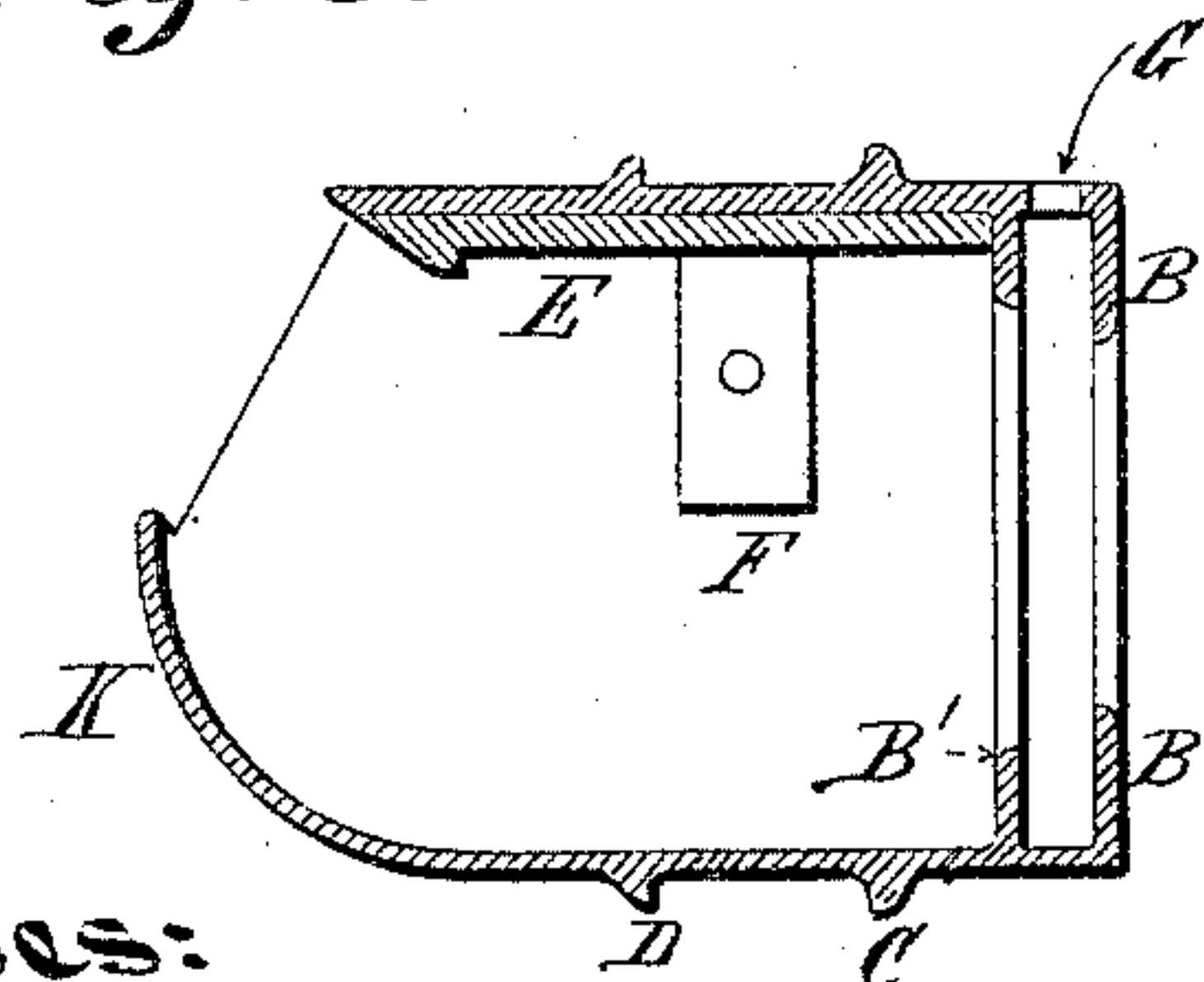
*Fig. 6.*



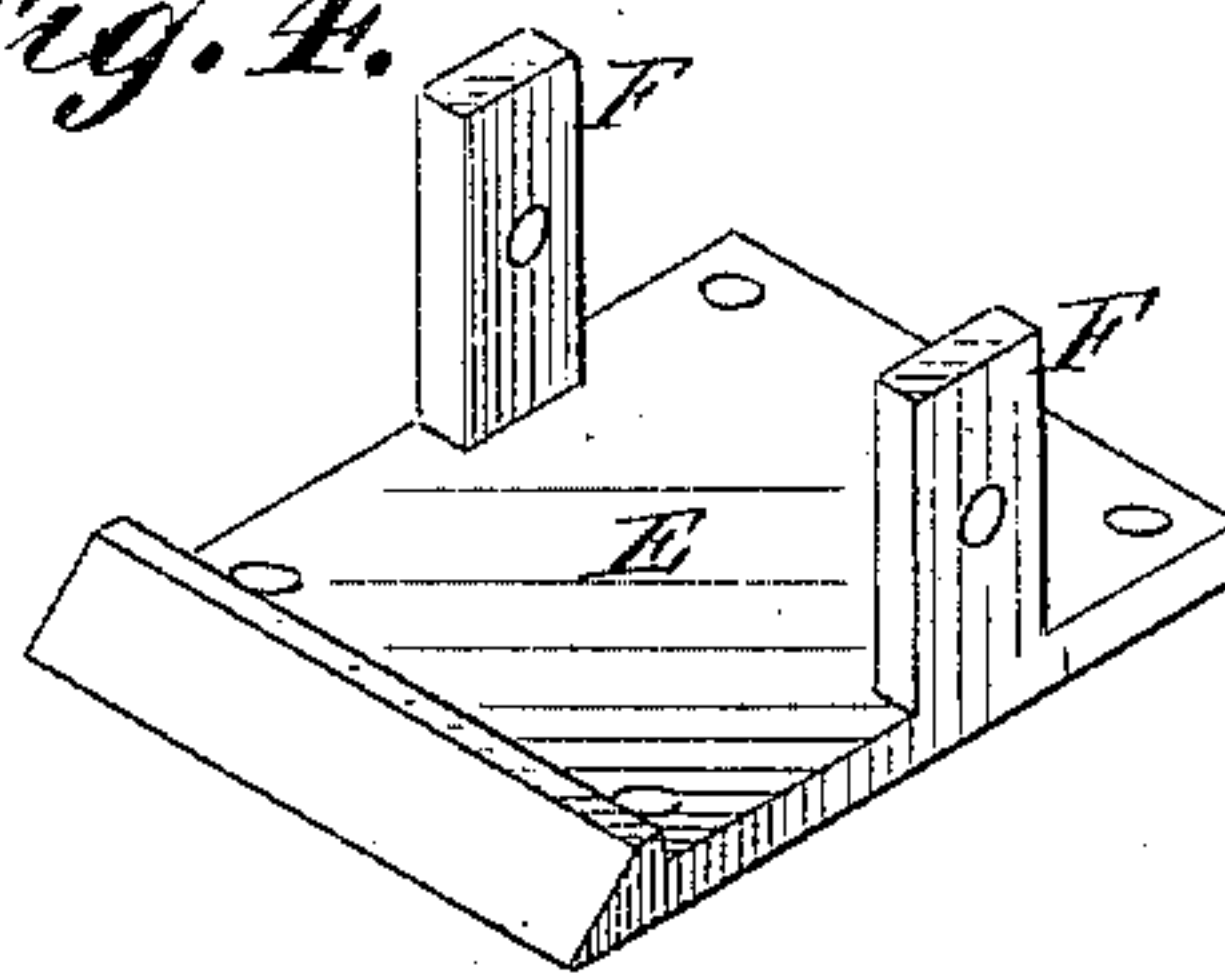
*Fig. 3.*



*Fig. 5.*



*Fig. 4.*



Witnesses:  
H. Coutant  
Wm. A. Pollock

Inventor:  
Edward William Mackenzie Hughes  
By his Attorney  
E. N. Dickerson

# UNITED STATES PATENT OFFICE.

EDWARD WILLIAM MACKENZIE-HUGHES, OF CHICAGO, ILLINOIS, ASSIGNOR  
TO HIMSELF, AND EDWARD N. DICKERSON, OF NEW YORK, N. Y.

## CAR JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 436,355, dated September 16, 1890.

Application filed December 8, 1889. Serial No. 334,201. (No model)

*To all whom it may concern:*

Be it known that I, EDWARD WILLIAM MACKENZIE-HUGHES, of Chicago, Cook county, State of Illinois, have invented a new and  
5 useful Improvement in Car Journal-Boxes, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to an improvement  
10 in journal-boxes for cars, made of pressed steel and with but a single joint or weld. Heretofore journal-boxes have generally been made of cast metal, or when made of steel have required several weldings. My journal-  
15 box is made of a single piece of metal pressed and shaped as will be hereinafter described.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 represents a cross-section through  
20 the metal plate to be shaped; Fig. 2, an elevation of the box shaped by the first process; Fig. 3, a perspective view of the box when completely bent and welded; Fig. 4, a perspective view of the strengthening crown-  
25 piece; Fig. 5, a cross-section through the completed box, showing the crown-piece in position; and Fig. 6, a general view of the blank from which the box is pressed.

In forming my box I take a sheet of steel  
30 having approximately the cross-section as shown in Fig. 1, which may be cut by a die or otherwise to the general shape shown in Fig. 6. The section shown in Fig. 1 may be rolled continuously and afterward cut off to  
35 the proper lengths, if desired. The sheet shown in Fig. 6 is then bent hot, preferably by the Fox process of pressing steel—as, for instance, that patented to Samson Fox on the 5th day of February, 1889, No. 397,179—

into the shape shown in Fig. 2, the offset K 40 forming the part K shown in Fig. 2. The upper edges of the box are then pressed over a former and butt-welded, as shown in Fig. 3. I prefer to do this welding by electricity. I prefer to strengthen the upper part of the  
45 box by the crown-piece E, having ears F F, which may be welded in or riveted, as desired. I finish the box by cutting the slot G by an emery-wheel or otherwise. The exterior flanges C D strengthen the box, and the  
50 interior flanges B B' serve as a slide to the wooden shield.

The completed box is evidently much lighter, simpler, and more enduring than those now made.

What I claim as my invention, and desire  
55 to secure by Letters Patent, is—

1. A journal-box for cars, formed of a single piece of steel and having but one joint,  
60 substantially as described.

2. The pressed-steel journal-box formed of one piece of steel, and having flanges B B' C D and projection K, formed of one piece of steel with but a single joint, substantially as  
65 described.

3. A journal-box for cars, formed of a continuous piece of pressed steel, and having flanges surrounding the same pressed from  
70 part of the metal of the box, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD WILLIAM MACKENZIE-HUGHES.

Witnesses:

M. G. LENNOX,  
CHAS. N. L. BORT.