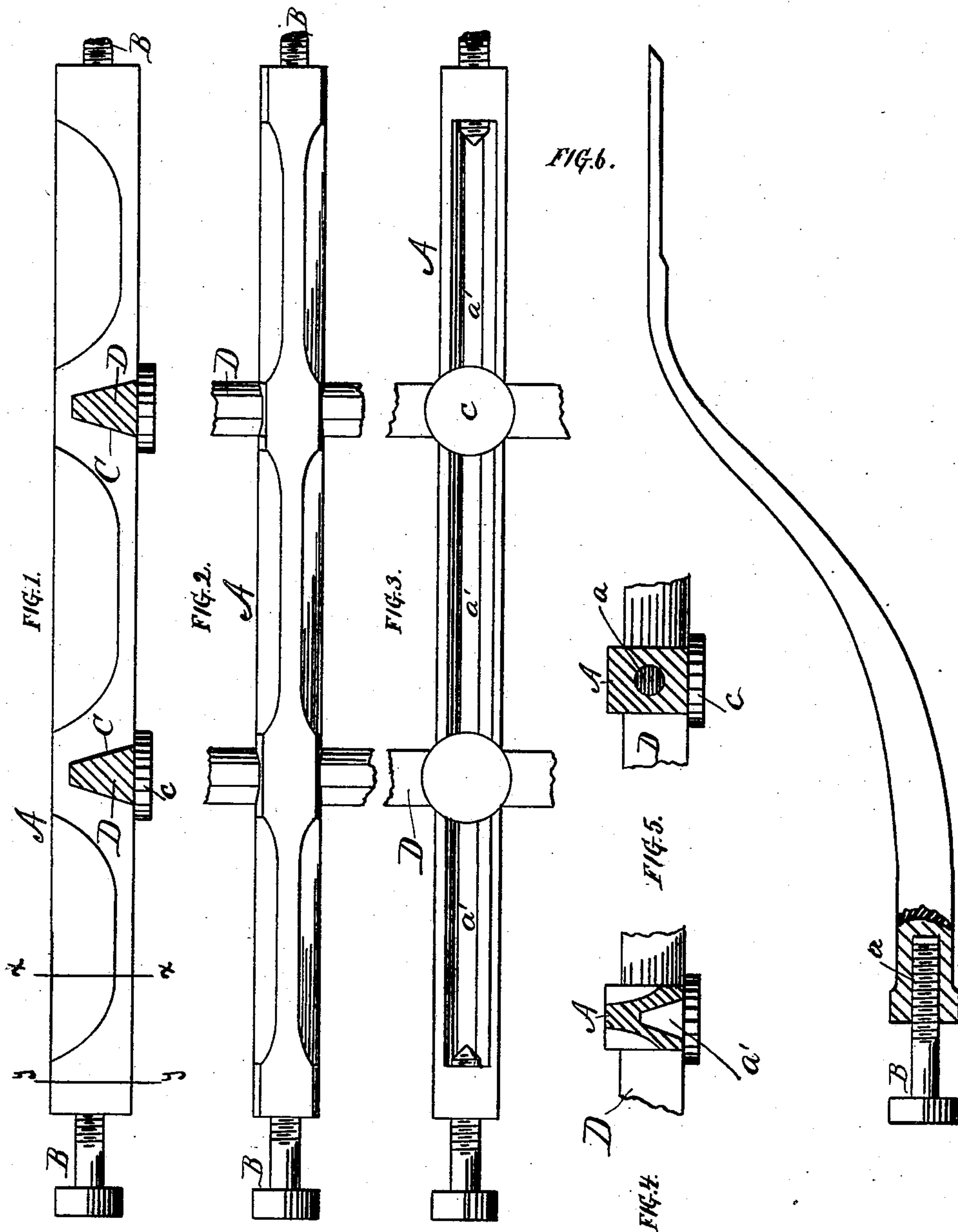


(No Model.)

B. BURR.  
Wagon Body Iron.

No. 243,427.

Patented June 28, 1881.



WITNESSES -  
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# UNITED STATES PATENT OFFICE.

BRADLEY BURR, OF CHICAGO, ILLINOIS.

## WAGON-BODY IRON.

SPECIFICATION forming part of Letters Patent No. 243,427, dated June 28, 1881.

Application filed May 9, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, BRADLEY BURR, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wagon-Body Irons, of which the following is a specification.

This invention relates to the irons used in the construction of the bodies of light wagons, such as are referred to in the patents to me of September 23, 1873, No. 142,989, and February 20, 1877, No. 187,452. It is desirable that this class of metallic parts be made of malleable iron, as the cheapest material adapted to the purpose; but where the irons require to be provided with screw-threaded points for securing them in the body-frame such points are, when made of that material, rendered too weak to resist the blows and strain to which they will be subject. This weakness is owing to the destruction of the tough or flexible exterior of the iron by the cutting of the thread. I have found, however, that if the iron is cast with an opening at the end, which may be threaded so as to receive a bolt, the thread in such opening will be strong enough for all practical purposes, so that by using wrought-iron bolts and passing them through the frame of the wagon-body into such openings in the iron, and tightening them therein, a very much better and stronger structure is obtained, not liable to the objection mentioned.

Another feature of the invention consists in making the external ribbing, used to strengthen and stay the panel-boards between the joints thereof, with the intersecting ribbing, hollow, as hereinafter explained, whereby metal is economized and the ribs strengthened. The hollows thus formed in them may be utilized as holding-spaces for blocks of wood, into which screws passing through the panel-board, or for securing the ribbing in place, may be inserted.

A third feature relates also to these external rib-irons; and it consists in providing them at the intersecting joints with transverse openings, through which the cross-ribbing may be passed, whereby I reduce the number of pieces employed in the ribbing and save labor in the manufacture.

In the drawings, Figures 1, 2, and 3 are respectively side, top, and bottom views of a vertical side rib-iron embodying my present

improvements. Fig. 4 is a cross section of the same upon the line *x x* of Fig. 1. Fig. 5 is another like section upon the line *y y* of the same figure. Fig. 6 shows one branch of the invention applied to a brace-iron.

In said drawings, A represents a vertical rib-iron. Instead of having bolts cast thereon, all of one piece therewith, and all of malleable iron, I provide it at each end with openings *a*, which are threaded, and into which the wrought-iron screws or bolts B may be inserted. As said bolts are inserted from the outside and through the frame of the wagon-body, it will be at once seen that by tightening them within said openings, the frame above and below may be drawn very compactly and forcibly together. The bolts B, being the parts which receive the blows and strains formerly visited upon the bolt ends of the irons under the old construction, and being able to undergo the same without injury, render the device durable and effective. The sections of these ribs, or those portions thereof between the intersections therewith of the cross-ribbing, I may make hollow, or of a thin web open at the under side. This feature will be fully understood from Figs. 3 and 4, where the recess *a'* is fully shown. In this manner of construction the metal is economized, while the rib is strengthened. The recesses *a'* may be utilized by filling them with wood, which will serve as points of attachment to the board against which the rib lies.

C C represent openings across the ribs A, such openings corresponding in size and form to the horizontal ribs D, which intersect them, and which are usually made of wood. To close the bottoms of these openings I cast upon or across them small disks *c*, as shown, so that the rib may not be weakened by the opening. These disks may be let into the panel-board very readily by a correspondingly-sized bit or boring-tool, which will remove the shallow depth necessary. By the use of ribs A, having these cross-openings, both horizontal and vertical ribbing may be made continuous from end to end and top to bottom of the wagon-body, whereas heretofore but one of them has been made continuous.

Fig. 6 shows the first feature of my invention applied to a brace-iron. It may also be



applied to any of the vertical corner-irons by providing them with a horizontal web of sufficient thickness and dimension to afford a socket to the bolt.

5 I claim—

1. In combination with the frame of a wagon-body, the malleable body-iron, having a threaded opening at the end, and a wrought-iron bolt entering said opening and adapted  
10 to secure said iron to the frame, substantially as set forth.

2. The combination, with the body of a wag-

on, of the iron rib A, having its interjoint portions made hollow, substantially as set forth.

3. The combination, in a wagon-body, of the 15 horizontal ribbing D and the vertical metal ribbing A, made continuous, and provided with openings through which the horizontal ribbing may pass, substantially as specified.

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Witnesses:

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