B. BURR.

METAL CORNERS FOR WAGON BODIES.

No. 187,453. Patented Feb. 20, 1877.

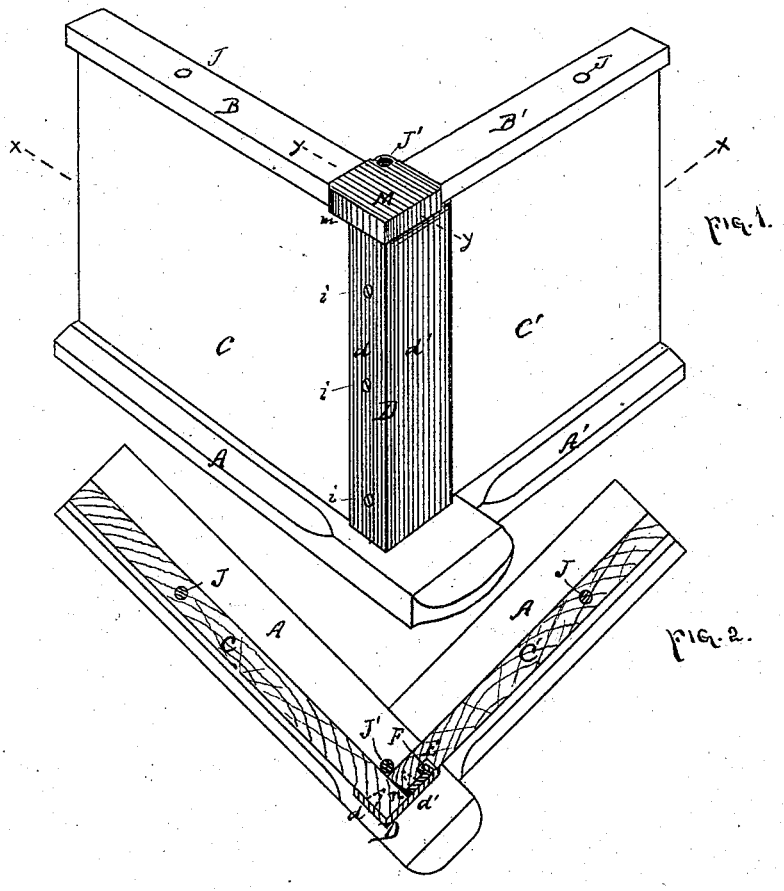


FIG. 1.

FIG. 2.

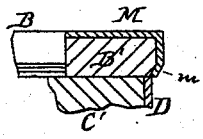


FIG. 3.

Witnesses
Forde R. Smith
Stanley L. Holbrook

Bradley Burr Inventor

By Munday & Evarts Attorneys

# UNITED STATES PATENT OFFICE.

BRADLEY BURR, OF BATAVIA, ILLINOIS.

## IMPROVEMENT IN METAL CORNERS FOR WAGON-BODIES.

Specification forming part of Letters Patent No. **187,453**, dated February 20, 1877; application filed October 3, 1876.

*To all whom it may concern:*

Be it known that I, BRADLEY BURR, of Batavia, in the county of Kane and State of Illinois, have invented certain Improvements in the Construction of the Corners of Wagon-Bodies, of which the following is a specification:

In the accompanying drawing, which forms a part of this specification, Figure 1 is a perspective view of a wagon-box corner constructed in accordance with my invention. Fig. 2 is a horizontal section of the same on the line *x x;* and Fig. 3 is a fragmentary section of the cap covering the junction of the top rails, taken on the line *y y* of Fig. 1.

Like letters of reference made use of in the several figures denote like parts wherever used.

In the said drawing, A A′ are the side and end sills, B $B^2$ are the top rails, and C C′ are the panels, of the wagon-body.

The invention relates particularly to the means employed for joining the panels to each other and for forming the corner.

To the end of the panel C, which overlaps the end of panel C′ far enough to come flush with the outer surface thereof, is applied the angular metal plate D, one limb or side of which, *d*, is secured to the face of the panel C, while the other limb, *d′*, turns the corner and sits against the surface of the other panel, C′. This metal plate is in length equal to the width or height of the panels, and is secured, as above indicated, to panel C by screws *i*. The panel C′, at a point beneath the lap or limb *d′* of the plate D, is cut with a vertical groove, E, into which sits a lip, F, from the inner face of the limb *d′*. This groove and lip extend the entire height of the panel. A bend or incline toward the corner is given to the lip, so that the joint between the panels formed by the lip and angle-plate partakes of a dovetail character, the groove being made to conform to this inclination of the lip.

In order to give a firmer character to the groove, which, in the straining of the joint when the wagon is in use, would be subject to wear, I provide a plate of metal, G, having an angle, *g*, which plate is secured to the panel C′, as shown in the drawing at Fig. 2, so that all of the bearing-surfaces opposed by the metal of the plate D and its lip are sheltered by the metal of the plate G.

To cover the joining of the two top rails B $B^1$, I apply a separate metal corner-cap, M, made of the square form shown, preferably, and having shoulders or recurves *m*, sitting down under the projection of the top rails at two sides, the two opposite or inner sides being made plain, to rest on the surface or to lie in a gain cut into the surface of the rails at the top. Bolts J J, extending down through the top rails, the panels, and the sills, serve to hold the parts together. A bolt, J, is also applied inside of the angle formed by the junction of the panels. This latter bolt passes through the inner corner of the plate or cap M, and thence, clear of all, down through the sill.

The end of panel C′ is rounded off, as at *m*, so that it may be connected to the other panel by first hooking the lip into the groove, when the panel C′ stands at an obtuse angle to panel C, and the two are then brought together at right angles by swinging panel C′ around to position. The panel C′ acts thus as a lever to strain the joint together tightly and solidly, so as to make an exceedingly rigid and firm connection, such as is required in wagon-work, where it is expected to be durable.

This construction, by permitting the joint to be thus turned together, also obviates the scratching and marring the finish of the surface occasioned where the corner-plate is so made that it must be slipped down into place in grooves. This is a matter of considerable importance, because such wagons are usually painted or varnished and finished in parts, and thus shipped in the "knock-down," to be put together at some place far away from the factory.

This formation of the corners of wagon-bodies is exceedingly cheap and durable, and gives a highly-finished appearance to very simple work. The irons are such in form that they may be readily made of malleable iron, and when applied will serve to guard the corners against marring and injury, besides dispensing with the necessity of the usual framing and tenoning.

Having thus fully described my invention,

that which I claim as new, and desire to secure by Letters Patent, is—

1. The corner-joint for wagon-bodies, consisting of an angle-plate secured to the outer surface of one panel, and furnished with a recurved lip to enter a groove in the other panel, which other panel is rounded off at the end, so that it may act as a lever in turning the parts of the joint together, substantially as specified.

2. The metal cap M, constructed as shown and described, and provided with the recurve flanges *m* and the aperture for a bolt at the inner corner, substantially as specified.

BRADLEY BURR.

Witnesses:
L. M. WHITNEY,
WM. M. WHITNEY.