(No Model.)

H. BIENHOFF.

CORNER PLATE FOR WAGON BOXES.

No. 281,435. Patented July 17, 1883.

Fig. 1

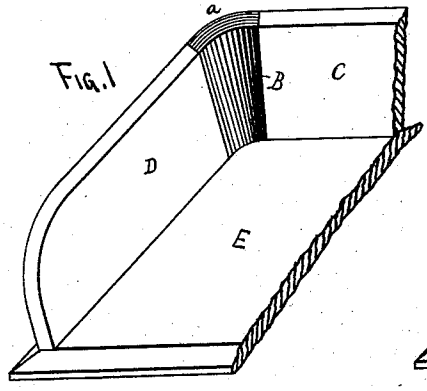


Fig. 2

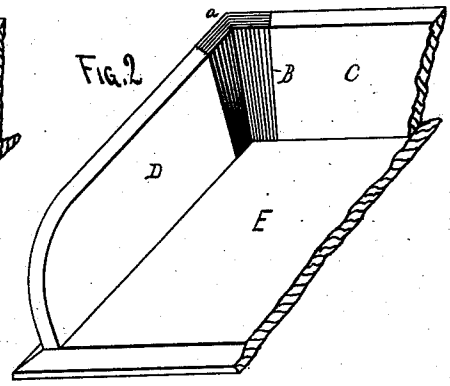


Fig. 3

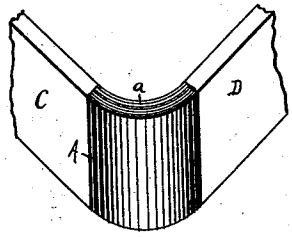


Fig. 4

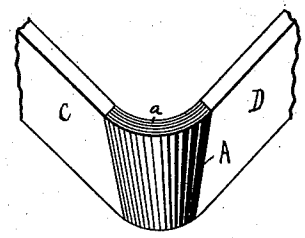


Fig. 5

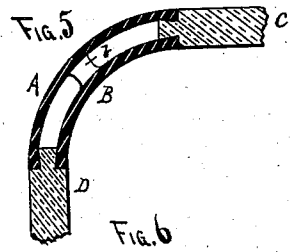


Fig. 6

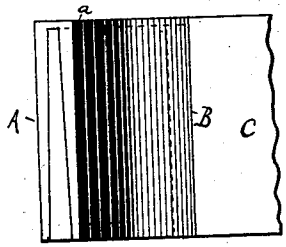


Fig. 7

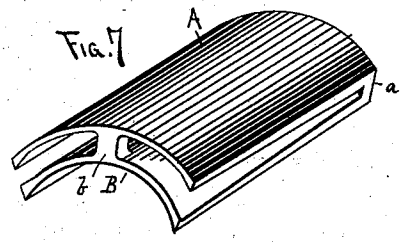


Fig. 8

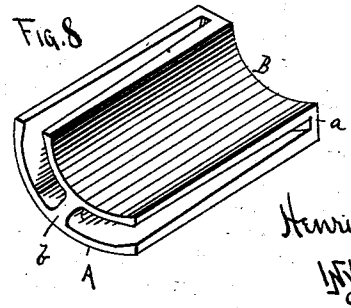
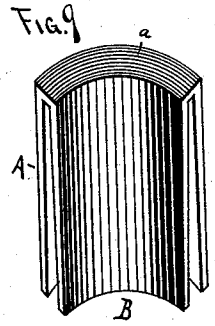


Fig. 9



WITNESSES.
Daniel Murphy.
Louis Fiesser Jr.

Henry Bienhoff.
INVENTOR. BY
Louis Fiesser Bleo,
Atty's.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

HENRY BIENHOFF, OF ST. PAUL, MINNESOTA.

CORNER-PLATE FOR WAGON-BOXES.

SPECIFICATION forming part of Letters Patent No. 281,435, dated July 17, 1883.

Application filed October 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY BIENHOFF, a subject of the Emperor of Germany, but who have declared my intention of becoming a citizen of the United States, and am a resident of St. Paul, in the county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Corner-Plates for Wagon-Boxes, Seats, and other Uses, of which the following specification is a full, clear, and exact description thereof, reference being also had to the accompanying drawings, in which—

Figure 1 is a perspective view of a corner of a buggy-seat, showing the improved corner-plate arranged therein in a curved form; and Fig. 2 is a similar view, showing the corner-plate arranged in a square or angular form. Figs. 3 and 4 show the corner-plate applied to a wagon-box. Fig. 5 is an enlarged sectional view of the corner-plate, illustrating its construction; and Fig. 6 is a side elevation of the same. Figs. 7, 8, and 9 are enlarged perspective views of the corner-plate, illustrating its construction and form.

This invention relates to metal plates or frames in which the ends of the sides of buggy-seats, wagon-boxes, &c., are secured to form the permanent corner of the seat or box.

The plate consists of two parts, A and B, connected at their tops by an end, *a*, and at the bottom by a brace or web, *b*, leaving an open space between them. The outside of the part A is intended to conform to the outside surfaces of the back C and end D of the seat E, while the outside surface of the part B conforms to the inside surfaces of the same, the thickness of the corner-plate thereby corresponding to the thickness of the back and ends of the seat or box. In seats the back and ends are generally at an inclined angle to the bottom E; hence when applied to such uses the corner-plate will also be formed angular to conform therewith, as shown in Figs. 1 and 2, and will also be formed angular when used in angular-sided boxes, as shown in Fig. 4; but when used in straight-sided boxes the plates will conform to the straight sides, as shown in Figs. 3, 5, 6, 7, 8, and 9. The outer edges of the sides A B are made thicker than the inner portions, so that a slightly-dovetail form is given to the outer portion of the space between the plates A B, and the plates decrease in thickness from the top toward the bottom at the outer edges, or at the parts where the dovetail form occurs, so that the space between the plates at their outer edges is wedge-shaped as well as dovetailed, or in the form of a tapering dovetail. By this means, if the ends of that portion of the boxes to be secured in the corner-plates be dovetailed to conform to the dovetail shape of the edges of the corner-plate and driven in from below, the wedge-shaped cavity will compress the wood and cause it to be held very firmly, and the "dovetail" will prevent its removal endwise. By this means a very simple and secure corner-plate is produced, requiring no screws, nails, or other fastening to secure it to the box or frame. The two plates A B being connected at the top by an end, *a*, the hollow space is covered and protected, and by means of the web *b* at the bottom the plates are greatly strengthened without adding to the weight. Another advantage of the closed top *a* is that the dovetail feature of the plate does not show, the joint having the appearance of being formed straight across the edges of the box or seat, thereby lessening the liability of opening by shrinking or swelling. The joint can be made much smoother by thus closing the top than if the whole of the wood were exposed.

In forming the dovetail on the wood it will be made somewhat larger than the metal sides, and will be made straight up and down, so that when the wood is driven into the corner-plate it will be compressed by both the dovetails and tapered sides of the metal plate, thereby insuring its more firm retention in place and lessening the liability of loosening by wrenching or straining.

The corners may be made square, round, angular, or of any other form, and used upon wagon or buggy seats, wagon-boxes, in coffins, some kinds of show-cases, cabinets, or boxes of any kind requiring such corner-plates. They will be found especially applicable, however, to buggy or wagon seats, as shown in Figs. 1 and 2.

The plate described has the following advantages: Being hollow and having the wedge-shaped opening, it is light, cheap, strong, and at the same time tightly binds the side pieces; being hollow and having open sides, with one end closed and the other open, the open end being

braced by the web *b*, that end is made stronger; the opening in the plate being wedge-shaped in one direction and dovetailed in the cross-direction, the side pieces will be compressed and held more tightly in place, and a stronger and closer joint formed.

Having fully described my invention and set forth its advantages, what I claim is—

1. A hollow corner-plate having open sides wedge-shaped or tapering from the bottom to the top of the plate, substantially as set forth.

2. A hollow corner-plate closed at one end and connected at the opposite end by a web, and having open sides, for the purposes set forth.

3. A corner-plate having an opening therein wedge-shaped in one direction and dovetailed in the cross direction, substantially as set forth.

4. A hollow corner-plate closed at one end and connected at the other by a web, and having open edges, the opening in the plate being wedge-shaped in one direction and dovetailed in the cross direction, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY BIENHOFF.

Witnesses:

C. N. WOODWARD,

LOUIS FEESER, Sr.