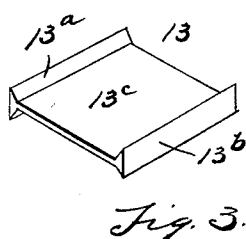
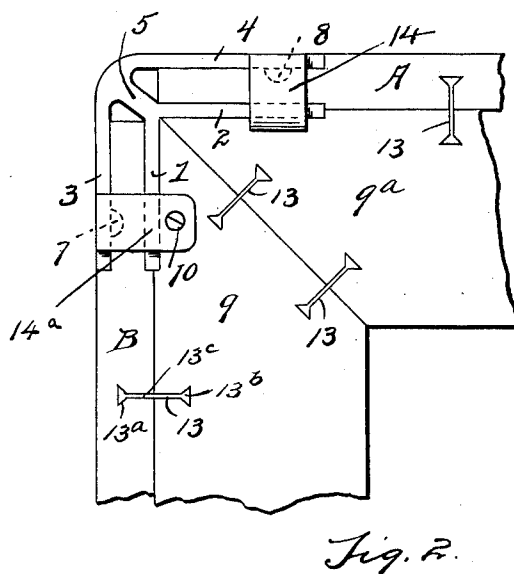
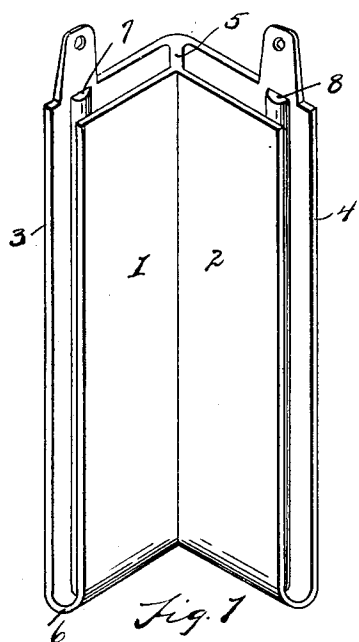


PATENTED JUNE 23, 1903.

NO MODEL.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDWARD L. PHIPPS, OF MILFORD, MICHIGAN.

CORNER-FASTENING FOR VEHICLE-BOXES.

SPECIFICATION forming part of Letters Patent No. 731,946, dated June 23, 1903.

Application filed October 22, 1902. Serial No. 128,211. (No model.)

To all whom it may concern:

Be it known that I, EDWARD L. PHIPPS, a citizen of the United States, residing at Milford, county of Oakland, State of Michigan, have invented a certain new and useful Improvement in Corner-Fastenings for Vehicle-Boxes; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to corner-fastenings for vehicle or other boxes, and has for its object an improved fastening in which the side and end boards of a box are secured in a firm and substantial manner without nails or screws, and the side and end boards are secured to the frame or bottom board with a nail or fastening of peculiar shape.

In the drawings, Figure 1 is a perspective of the corner-fastening. Fig. 2 shows that end of the fastening which is at the bottom of the box. Fig. 3 is a detail of the nail used in fastening the side and end boards to the frame.

The corner-fastening shown in Fig. 1 is made of a metal that is malleable and can be slightly bent, but which is rigid enough to retain its position unless considerable force is used to bend it. Preferably made of malleable cast-iron, it consists of an inner angled section 1 2, arranged to engage on the inside of the ends of the end and side boards, and an outer angled section 3 4, arranged to engage on the outside of the side and end boards. The two angled sections are joined by a web 5, which unites the inner surface of the outer section and the outer surface of the inner section. The two sections are also joined by a cap-wall 6, which crosses from one end of the inner angled section to the adjacent end of the outer angled section. The flanges 3 and 4 of the outer section are each provided near those edges which are vertical with ribs 7 and 8, which are on the inside or that side of the flanges which lie toward the parts 1 and 2, and each flange 3 and 4 is provided with an extension-lug 14 14^a, that is bent over to cross the opening between the pieces 1 and 3 and is clenched or may be clenched or bent so

that the extreme end of it lies parallel with the flange 1, or it may be simply bent at a right angle and secured to the frame-piece 9 by a screw 10, either style of fastening being adopted as may be most suitable for the particular work.

In assembling the side boards A and the end board B in the corner-fastening the flanges 1 and 3 are spread slightly at the open end and the board slipped to place, and the flanges are then compressed or crowded until the rib 7 sinks into the wood. If necessary, the wood may be grooved slightly.

The side and end boards are secured to a mitered frame composed of pieces 9 and 9^a by the special nail 13, which is a metallic nail having flanges 13^a and 13^b, united by a web 13^c. This nail is an ordinary article of commerce and is not included as a part of the invention, but is a useful form of nail to secure the wooden parts together, and when used in connection with the fastening involved in this invention makes a very firm and strong box-corner.

What I claim is—

1. A corner-fastening consisting of an outside angle-plate, an inside angle-plate, a web uniting the plates at their angles, an end cap uniting the plates, and an extension-lug on one of said plates opposite the end cap adapted to be bent across the opening between the plates, substantially as described.

2. A corner-fastening consisting of an outside angle-plate, an inside angle-plate, a web uniting the plates at their angles, an end cap uniting the plates, ribs on the inside surface of the outer plate parallel to the web, and lugs projecting beyond the ribs on the end of the plates opposite the cap and adapted to be bent over the opening between the plates to secure the two from spreading, substantially as described.

3. A corner-fastening consisting of an outside angle-plate, an inside angle-plate, a web uniting the plates at their angles, an end cap uniting the plates, ribs on the inside surface of the outer plate parallel to the web, and lugs projecting beyond the ribs on the end of the plate opposite the cap and adapted to be bent over the opening between the plates and clenched, substantially as described.

4. A corner-fastening consisting of an out-

side angle-plate, an inside angle-plate, a web
uniting the plates at their angles, an end
cap at right angles to the angle-plate, and
uniting the outside and inside angle-plates,
5 ribs on the inside of the outside angle-plate
near the edges thereof and parallel to the web,
clench-lugs projecting from the outside an-
gle-plate adapted to be bent to engage over
the inside angle-plate and arranged to be se-

cured in their bent position and to hold the 10
two plates from spreading, substantially as
described.

In testimony whereof I sign this specifica-
tion in the presence of two witnesses.

EDWARD L. PHIPPS.

Witnesses:

CHARLES F. BURTON,
MAY E. KOTT.