No. 709,919. Patented Sept. 30, 1902.

C. W. MITCHELL.

PAIL HOOK.

(Application filed June 18, 1902.)

(No Model.)

Fig. 5.

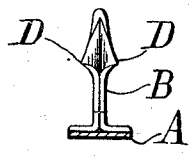


Fig. 6.

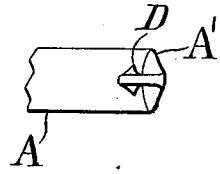


Fig. 3.

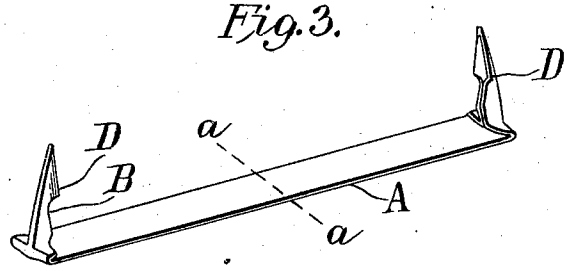


Fig. 1.

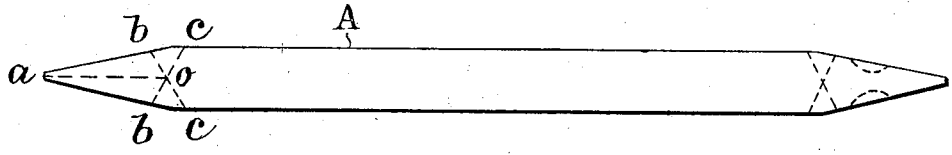


Fig. 4.

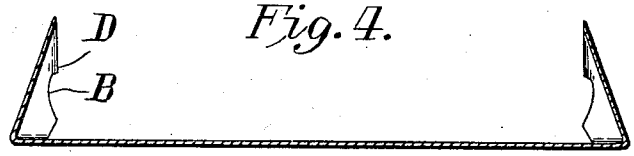
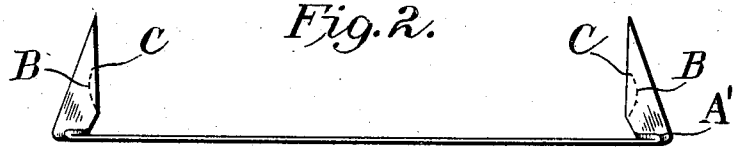


Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES W. MITCHELL, OF BROOKLYN, NEW YORK, ASSIGNOR TO TWISTED WIRE BOX STRAP COMPANY OF NEW YORK, A CORPORATION OF NEW YORK.

PAIL-HOOK.

SPECIFICATION forming part of Letters Patent No. 709,919, dated September 30, 1902.

Application filed June 18, 1902. Serial No. 112,171. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. MITCHELL, a citizen of the United States, and a resident of the borough of Brooklyn, in the county of Kings, city and State of New York, have invented a new and Improved Pail-Hook, of which the following is a full, clear, and exact description.

My invention relates to pail-hooks or box-fasteners, and as such constitutes an improvement on a special form of pail-hook invented by me and clearly set forth in Patent No. 606,469, dated June 28, 1898.

More specifically, the said invention consists of a strip of metal pointed, bent, and folded at its ends to form fastening-points of double thickness, said fastening-points being notched and the two sides above the notch being bent outwardly to form barbs, which serve to secure the points in the material into which they have been driven.

Reference is herein made to the accompanying sheet of drawings, which forms a part of this specification, in which—

Figure 1 is a plan of the blank from which the pail-hook may be made; Fig. 2, a partially-formed pail-hook; Fig. 3, a complete pail-hook; Fig. 4, a longitudinal section through the same; Fig. 5, a cross-section of Fig. 3 in line *a a;* Fig. 6, a plan view of the fastening-point.

The blank from which the pail-hook is formed comprises a flat strap or strip A, which may be of metal, pointed at both ends, as shown in the drawing, Fig. 1. The pointed ends of this blank are bent up at preferably an acute angle to the body of the strip on the dotted line *c o c* and folded longitudinally of the strip on the line *a o*, so that the two edges of a pointed portion of the blank thus folded on themselves lie adjacent and parallel to each other, and the fastening-point so formed is consequently of double thickness. By this operation of bending and folding reverse creases are formed on substantially the line *b o b*, and the folded sides of the pointed end near its base are pressed into close contact with the body of the strap, as shown at A′, whereby the fastening-point is held rigid with the end of the strap and is thus provided with a flat and relatively heavy base to receive the impact of the driving-hammer, thereby obviating any tendency to curl on the part of the point. For the sake of convenience of description I have shown this stage of the formation of my improved fastener by the full lines in Fig. 2 of the drawings. Approximately midway between the end and base the fastening-point is notched or cut away, as indicated by the dotted lines at B of Fig. 2, and the metal corners C so formed in the double thickness of the point above the notch are bent outwardly, as shown in the drawings, forming barbs D. The shape of the notch B is so designed that the corners or barbs D when bent out will be wedge-shaped and comparatively sharp to afford effective retaining means for the fastening-points when they have been driven into the material of the pail or box and cover. It will thus be seen that the pail-hook consists of a relatively thin body portion and relatively thick fastening-points provided with barbs, so that the former can be readily bent over the corner of the box or pail to be fastened, while the fastening-points, being of double thickness, are sufficiently stiff to permit of being quickly driven home, and that the barbs serve to hold them securely in that position. Furthermore, the plane of the fastening-point is parallel with the axis of the strap, and the barbs project laterally and approximately perpendicular therefrom, giving a maximum retaining efficiency to the barbs in that there is a minimum of disturbance of the wood fibers on those sides of the point upon which the barbs are formed.

While I have described one way in which my pail-hook can be made from a blank, it is obvious that the notches may be cut in the blank either before or after bending, as shown by the dotted line at the right-hand end of Fig. 1, and that the barbs may be bent outwardly or the pointed ends formed either before or after the latter are bent up without departing from the spirit of my invention. It will also be obvious that the shape of the body A of the pail-hook may be suitably varied, so as to be round, oval, or polygonal in cross-section, and such is intended to be included in the subjoined claims.

Having thus described my invention, the

following is what I claim as new and desire to secure by United States Letters Patent:

1. An article of manufacture consisting of a metal strap of convenient shape, the end portions thereof being flat and folded each on itself and provided with corners bent outwardly to form approximately perpendicular barbs, substantially as described.

2. As an article of manufacture, a strap, pointed end portions thereon folded each on itself, each end portion being provided with a barb on each folded edge, substantially as described.

3. As an article of manufacture, a metal strip, the end portions of the same being folded longitudinally and disposed at an angle to said strip to form fastening-points, and oppositely-projecting barbs formed on the adjacent edges of said folded portions, substantially as described.

4. As an article of manufacture, a pail-hook consisting of a strap, pointed end portions thereon each folded longitudinally on itself and bent over into contact with said strap to form a relatively heavy base for the folded portion, and opposite and outwardly-bent barbs on the adjacent folded edges, substantially as described.

5. As an article of manufacture, a pail-hook consisting of a strap, pointed end portions thereon, folded to form fastening-points of double thickness, the said folded portion being bent over into close contact with the body of the strap to form a flat and relatively heavy base portion, and oppositely-projecting barbs on said folded portions and approximately perpendicular thereto, substantially as described.

6. As an article of manufacture, an oblong piece of metal, the end portions of the same being disposed at an angle to the body of the piece and folded longitudinally to form fastening-points of double thickness, corners on the adjacent edges of said folded portions formed by removing therefrom a part of the metal and bent outwardly to constitute barbs for the fastening-points, substantially as described.

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

C. W. MITCHELL.

Witnesses:
G. A. TAYLOR,
H. G. KIMBALL.