P. MILES.

BAIL-EARS FOR PAILS, &c.

No. 188,532. Patented March 20, 1877.

Fig. 1.

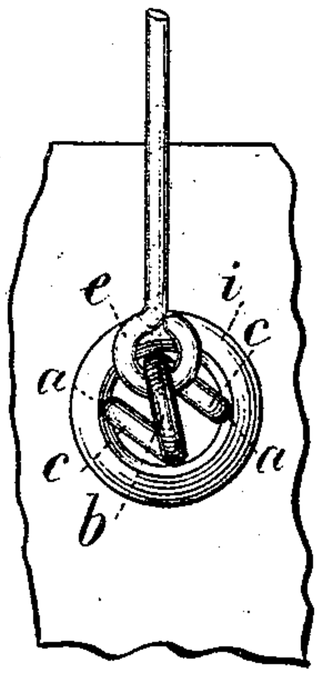


Fig. 2.

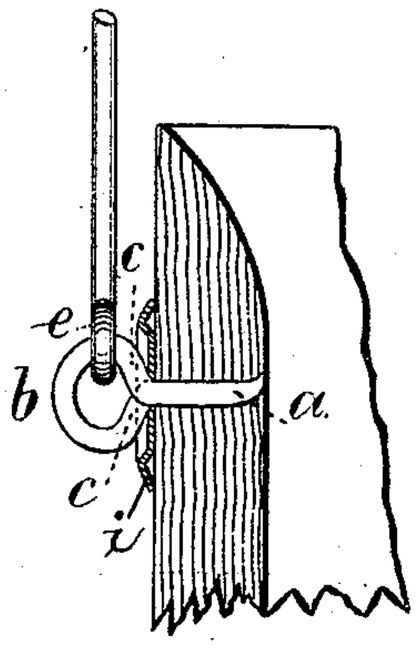


Fig. 3.

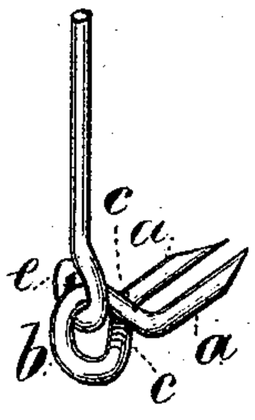
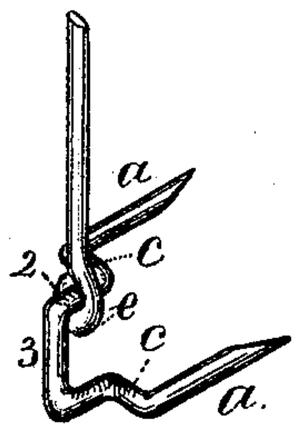


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

PURCHES MILES, OF NEW YORK, N. Y.

IMPROVEMENT IN BAIL-EARS FOR PAILS, &c.

Specification forming part of Letters Patent No. **188,532**, dated March 20, 1877; application filed February 22, 1877.

To all whom it may concern:

Be it known that I, PURCHES MILES, of the city and State of New York, have invented an Improvement in Bail-Ears for Pails, &c., of which the following is a specification:

Wire ears for bails have been made with two penetrating-points and an intermediate eye, as in Letters Patent No. 7,222, (reissue;) but, in this instance, the eye upon the bail had to be hooked into the wire ear, and afterward closed, because the eye upon the ear was closed, or nearly so, and the eye was parallel, or nearly so, with the surface of the pail. In Letters Patent No. 147,343, granted to me, an open loop is shown, so that the ear can be passed through the eye of the bail and driven into the pail, thus lessening the labor required in applying the ears to the pail; but in my said patent the wire ear was intended to be driven into the wood, with one point above the other, or nearly so.

My present invention is made to secure all the benefits of my aforesaid invention, so far as applying the ear directly to the closed eyes at the end of the bail, and at the same time provide for the penetrating-points being inserted into the wood in a horizontal plane, or in a plane that is at an inclination, so as not to tend to split the wood, because both points do not pass into the wood in the line of the grain thereof.

I make use of two penetrating-points, *a*, and a loop, *b*, with one or two shoulders, *c*, the whole formed out of one piece of wire. The penetrating-points *a* are parallel, or nearly so, to each other, and joined by the loop portion *b*; hence the bail-ear would be similar to an ordinary staple were it not for the shoulder or shoulders *c*.

The shoulder or shoulders are not formed, as heretofore, by an offset or body that lies against the surface of the pail, in the same plane, or nearly so, as the penetrating-points and eye; but such shoulders are bent off laterally, so that they are not in the same plane as the points, and the open eye or loop between the shoulders occupies a position diagonal to the plane passing through the points and to the shoulders.

If these shoulders were not employed, the bail-ear would be liable to work loose or be driven into the pail by any external blow, and cramp or bind the eye *e* at the end of the bail; but, in consequence of the wire being bent to form one or two shoulders at *c*, the ear cannot be driven too far into the wood, such shoulder or shoulders forming a stop or stops against the surface of the wood, or against the surface of a washer or plate, *i*, that is provided with a hole or holes for the passage of the penetrating points or prongs *a*.

This bail-ear is to be driven in to a determined distance, and the inner ends clinched or bent in driving, so that the ear will remain firm under the ordinary conditions of use.

In the drawing, Figure 1 is an elevation of the said ear as applied to a pail. Fig. 2 is a section through the pail vertically. Fig. 3 is a perspective view of one of the ears separately.

In these figures the ears are all of the same general shape, the distance between the penetrating-prongs *a* only varying.

In Fig. 4 I have shown, by a perspective view, the said ear with the bends made therein more suddenly, so that the eye of the bail will remain upon the nearly straight portion 2 of the ear, and the connecting portion 3 of the ear will run vertically, or nearly so. This form is sometimes preferable, especially in regard to the appearance thereof.

In all instances the loop or open eye is either at right angles, or at an inclination to a plane passing through the prongs, and the shoulders *c*, resting against the surface of the wood, or the plate or washer, limit the extent to which the prongs can be driven, and form a bearing that prevents the ear becoming loose by use. The eye or loop of the ear stands at right angles, or nearly so, to the surface of the pail, and vertically or at an inclination. The washer or plate *i*, when used, forms an ornamental finish, and keeps the eye of the bail from contact with the wood, and the prongs hold in the wood at separate places, and are not liable to split the same.

I claim as my invention—

1. The bail-ear formed of metal, with an open eye between the two penetrating-points diagonally to a plane passing through such points, and a shoulder at the junction of one

or both of the points with the eye, substantially as set forth.

2. The bail-ear formed with a vertical, or nearly vertical, loop or open eye, at right angles, or nearly so, to the surface of the pail, and penetrating-points at each side thereof, in a plane that is horizontal or at an inclination, substantially as set forth.

3. The bail-ear made with an eye, two penetrating-points, and a shoulder, in combination with the plate or washer that is confined by the shoulder, substantially as set forth.

Signed by me this 19th day of February, A. D. 1877.

PURCHES MILES.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.