

H. A. POND.

BAIL EAR.

No. 187,482.

Patented Feb. 20, 1877.

Fig. 1-

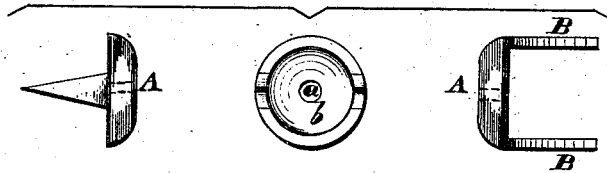


Fig. 2-

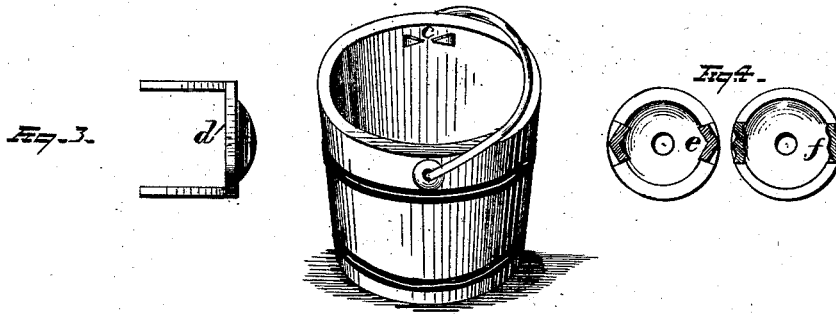


Fig. 5-

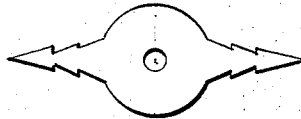


Fig. 6-

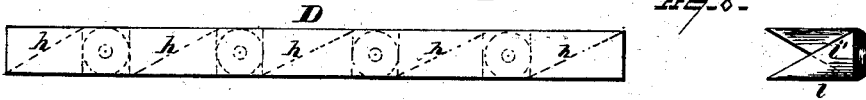
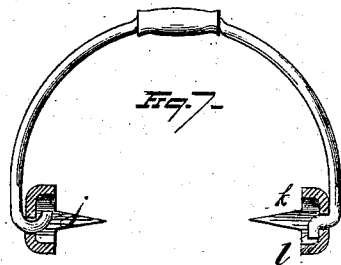


Fig. 7-



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN BAIL-EARS.

Specification forming part of Letters Patent No. 187,482, dated February 20, 1877; application filed October 6, 1876.

*To all whom it may concern:*

Be it known that I, HENRY A. POND, of Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Bail-Ears; and I do hereby 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved bail-ear for pails and buckets.

Figure 1 represents reverse side elevations and an end view of my invention. Fig. 2 shows a pail furnished with my improved bail-ears. Figs. 3, 4, 5, 6, and 7 are modifications embodying my invention.

The object of my invention is to construct a sheet-metal bail-ear complete in itself, and provided with means of attachment, whereby it is adapted to be readily secured to any wooden receptacle, and of such form that it shall occupy the least possible space, and insure the maximum strength of the metal employed.

A represents a bail-ear embodying my invention. The head *b* is perforated at *a*, and preferably made convex in form, to allow the extreme end of the bail to be inserted therein, and move freely between the pail and the inner surface of the bail-ear. B B' are attaching-prongs, which may be formed with smooth edges, as shown in Fig. 1, or barbed edges, as represented in Fig. 5. Prongs B B' are bent at right angles to the convex head, and are of sufficient length to slightly project through the stave when driven therein, that the points of prongs may be clinched against the interior surface of the pail, as shown at *c* in Fig. 2.

It is evident that instead of forming the entire head of the bail-ear of convex form, the central portion only of the head may be of such form, and thus constitute an annular flat bearing, *d*, around the outer portion of the head, as shown in Fig. 3. Again, the prongs, instead of being flat, as represented in Fig. 1, may be grooved or corrugated, as shown at *e f* in Fig. 4, in order that they may

be more firmly embedded in the stave, and thus better enabled to withstand undue strain.

In order to manufacture sheet-metal bail-ears without waste of stock, they may be cut from a strip of sheet metal, as represented in Fig. 6. The strip D is severed by a shearing or cutting punch through lines *h*, a single cut thus forming the opposite prongs of two bail-ears. When produced in the manner last referred to, the prongs are formed with fine sharp points, and may be easily driven into a stave, while on the other hand, if the prongs were punched from a piece of sheet metal, the greater portion would be dull and imperfect, as the diamond-pointed dies and punches thus employed soon wear, and are thus objectionable in use.

The punch and die employed to cut out the blanks may be constructed to bend the prongs, and also to upset and perforate the head, though in practice I prefer to form the bail-ear by a drop-press.

Bail-ears constructed in the manner represented in Fig. 6 have their prongs formed with one edge, *i*, at right angles to the convex head, and the other edge, *i'*, extending from the point of the prong to the opposite side of the head.

The ends of the bail may be attached to the bail-ears, as shown in Fig. 7, either by forming an eye, *j*, on the end of the bail, and insert the same in the bail-ear, or by bending the end of the bail, so as to form a square shoulder, *k*, with the extreme end *l* turned downwardly, and thus securely locking the bail end from displacement.

It is evident that bail-ears of the form shown may be made of malleable cast-iron, or other cast material, and effect the results obtained from the employment of sheet-metal ears.

Bail-ears constructed as above described are economical in manufacture, as waste scrap-iron may be cut into strips of the desired width and utilized for the purpose in view. They are of great strength and durability, as the prongs are broad, and thus insure a firm seat in the stave of the bucket or pail, while the enlarged convex head has a large bearing-surface against the outer surface of the stave. They fit snugly against the sides of the pail,

and hence are not liable to be bent or injured, and thus prevent the free working of the bail.

Pails, buckets, or tubs furnished with bail-ears of the construction described are substantial in appearance, and may be nested in a small compass for shipment.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A bail-ear made of a single piece of material, and formed with a perforated convex head for the attachment of the bail, and at-

taching-prongs sharpened at their ends, the same bent at right angles to the convex head, whereby they are adapted to be driven into a wooden pail or stave, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 2d day of October, 1876.

HENRY A. POND. [L. S.]

Witnesses:

MILES L. PECK,

CHAS. S. TREADWAY.