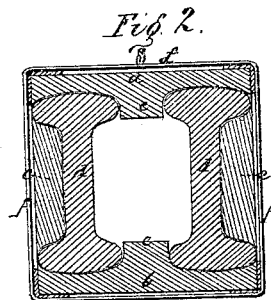
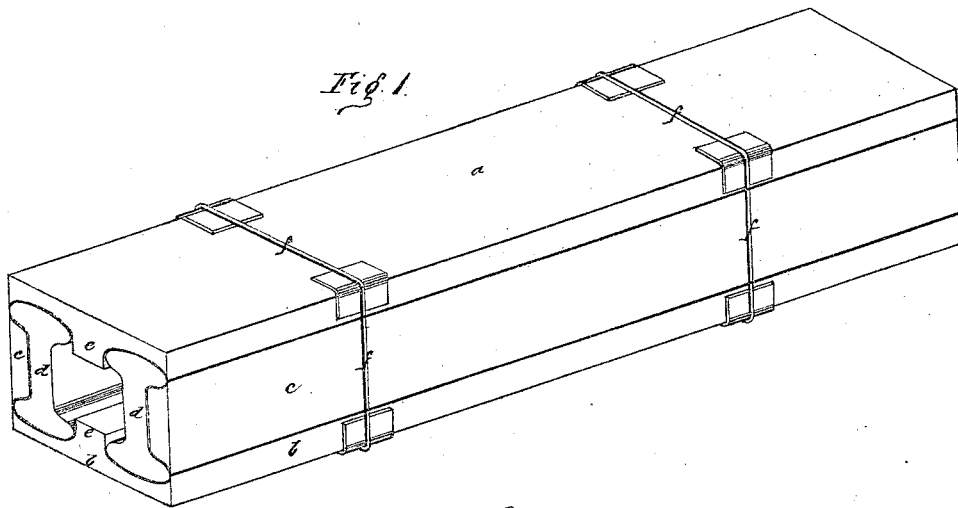


J. OSTRANDER.

Improvement in Piles for Nut-Blanks, Tubes, &c.

No. 114,188.

Patented April 25, 1871.



Witnesses:

H. J. Tuttle
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UNITED STATES PATENT OFFICE.

JONATHAN OSTRANDER, OF MANCHESTER, VIRGINIA.

IMPROVEMENT IN PILES FOR NUT-BLANKS, TUBES, &c.

Specification forming part of Letters Patent No. **114,188**, dated April 25, 1871.

To all whom it may concern:

Be it known that I, JONATHAN OSTRANDER, of Manchester, in the county of Chesterfield and State of Virginia, have invented a new and useful Improvement in Pile for Nut-Blanks, Tubes, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 is a transverse section.

This invention relates to a pile to be welded by rolling into a skelp, from which nut-blanks may be sawed off, or hollow shafting or tubing be rolled; and the invention consists of a pile, oblong or square in cross-section, and made up of six pieces—viz., a top piece, bottom piece, two side pieces, and two double-headed worn-out railroad-rails placed between the top and bottom pieces, and in contact with the side pieces, said top, bottom, and side pieces being rolled so as to fit those parts of the rails which they respectively join.

Referring to the drawing, *a* is the top piece, *b* the bottom piece, and *c c* the side pieces, of the pile, these being composed either of puddled iron, scrap-iron, or bloom-iron, and drawn

between ordinary grooved rolls. *d d* are the double-headed rails. In the inner sides of each of the top and bottom pieces are formed two longitudinal grooves, and between them a longitudinal rib, *e*, running centrally of the piece. The heads of the rails *d* fit into said grooves, and the ribs *e* keep the rails apart.

The pieces *c* are shaped so as to fit into the rails between the heads thereof, the outer sides of the pieces *c* being flush with the edges of the top and bottom pieces.

The pile is bound together by straps *f*, in the ordinary manner.

When this pile is rolled a cylindrical former is inserted into the empty space between the rails, so as to produce a cylindrical bore in the skelp.

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

A pile made up of the top and bottom pieces, *a b*, grooved and ribbed, as shown, side pieces, *c*, and rails *d*, as specified.

JONATHAN OSTRANDER.

Witnesses:

JNO. D. BAIRD,
DOUGLAS BAIRD.