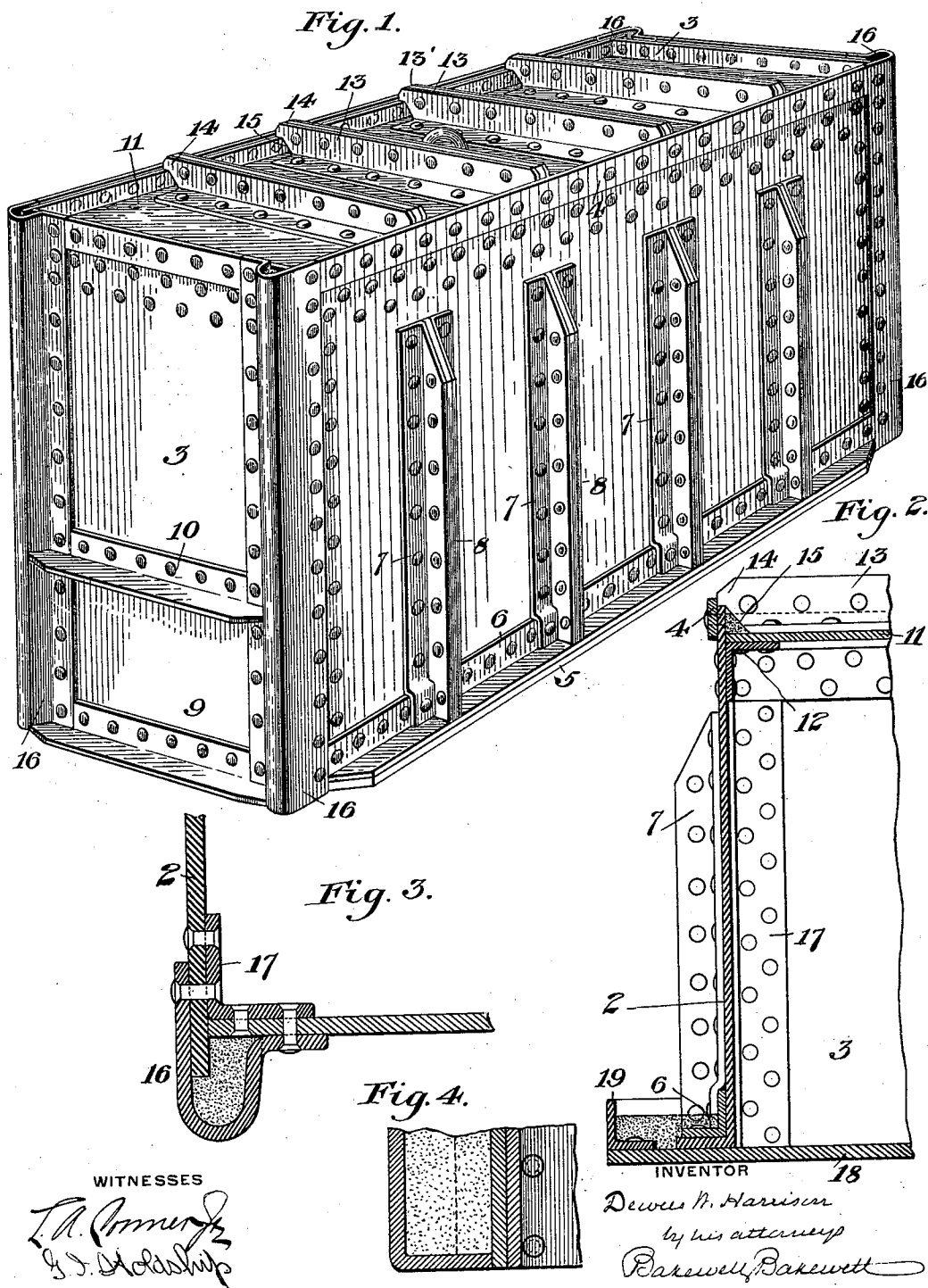


(No Model.)

D. W. HARRISON.
ANNEALING BOX.

No. 560,316.

Patented May 19, 1896.



UNITED STATES PATENT OFFICE.

DEWEES W. HARRISON, OF REYNOLDTON, PENNSYLVANIA.

ANNEALING-BOX.

SPECIFICATION forming part of Letters Patent No. 560,316, dated May 19, 1896.

Application filed November 2, 1895. Serial No. 567,704. (No model.)

To all whom it may concern:

Be it known that I, DEWEES W. HARRISON, of Reynoldton, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Annealing-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a general perspective view of my improved annealing-box. Fig. 2 is a broken transverse section of the same, showing the sand packings at top and bottom. Fig. 3 is a detail section of the corner construction, and Fig. 4 is a detail view of the bottom of the corner-strip.

My invention relates to the class of annealing-boxes, and is designed to provide a box which shall be perfectly air-tight, and shall remain so even under the intense heats to which it is subjected, as well as retain its original form and not become warped or distorted.

In the drawings, in which similar numerals indicate corresponding parts, 2 is the side and 3 the end of the box, which is made without a bottom, and is set upon the bottom plate 18, having a rim 19, between which and the bottom edges of the box is placed sand or similar material to seal the same when it is placed over the metal to be annealed, as shown in Fig. 2. The upper edges of the sides and ends of the box are strengthened by reinforcing-strips 4 riveted thereto, and the lower edge portions of the sides are bent outwardly at substantially a right angle, as shown at 5 in Fig. 1. In the angle thus formed are secured angle-irons 6, and to the sides of the box are riveted pairs of vertical angle-irons 7 with separating-strips 8 between them, the webs of the vertical angles being cut away to fit over the bottom angle, and the flanges being bent over it and riveted, as shown. The bottom edges of the ends are flush with the angle portions of the sides, and to the ends are riveted angle-irons 9 at the bottom and others 10 intermediate of their length. The top 11 is secured to the sides and ends by inner angle-irons 12 and is stiffened by outer transverse pairs of angle-irons 13, riveted to each other and to the top, and

having interposed separating-strips 13'. These angles and strips are provided with shoulders 14, resting upon the side edges of the box, and are cut away at 15 beneath these shoulders to allow the sand packed upon the top to cover every part of the joint. The strips 4 extend above the edges of the sides and cover the ends of the angles 13.

The sides of the box extend beyond the ends, and about the corners are secured the bent vertical inclosing strips 16, secured by rivets passing through these strips, through the box, and through the inner vertical angle-irons 17, space being left between the strip 16 and the corner in which sand is packed, as shown in Fig. 3. The bottom portion of each strip 16 is bent inwardly and secured by welding or other means, giving a bottom for the sand-containing recess, as shown in Fig. 4.

The advantages of my invention will be apparent to those skilled in the art, since the corners of the box are thoroughly sealed and prevent air from leaking in, while the cutting away of the top-strengthening angles allows the sand to cover and protect all parts of its joints, and the entire construction is cheap, strong, and not liable to be warped out of shape.

Heretofore the top has been flanged upwardly at the sides and riveted to the sides above the level of the top, so that sand packed over the top does not cover the seam. This I avoid by making the seam on the same general level as the top and extending the sides above it, so that the sand will cover the seam.

I claim—

1. An annealing-box, having outer inclosing strips covering the corners and leaving a space for sand, substantially as described.

2. An annealing-box, having a cover provided with exterior strengthening-strips, the ends of the strips being cut away to admit sand along the seams; substantially as described.

3. An open-bottom annealing-box, having its sides bent outwardly at the bottom, and angle-irons secured in the angles thus formed; substantially as described.

4. An annealing-box, having at each corner an inner angle-iron and an outer inclosing strip riveted through the side and end, leav-

ing an outer space for sand to be packed about the corner; substantially as described.

5. An annealing-box, having its top provided with transverse strengthening-strips, 5 said strips having projecting shoulders resting upon the upper edges of the sides, and longitudinal strips secured to the sides and projecting above them, thus covering at least

a part of the projecting shoulders of the transverse strips; substantially as described. 10

In testimony whereof I have hereunto set my hand.

DEWEES W. HARRISON.

Witnesses:

C. BYRNES,

G. I. HOLDSHIP.