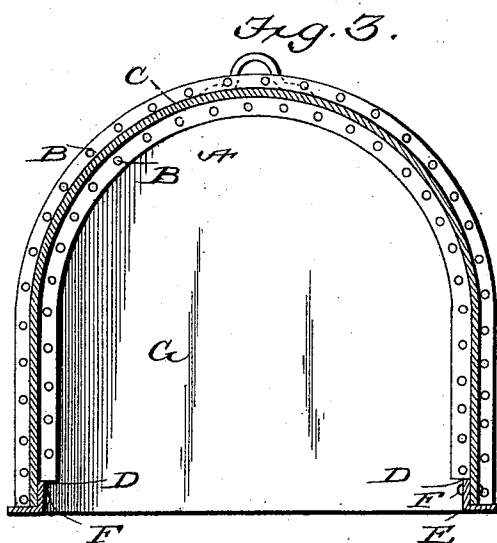
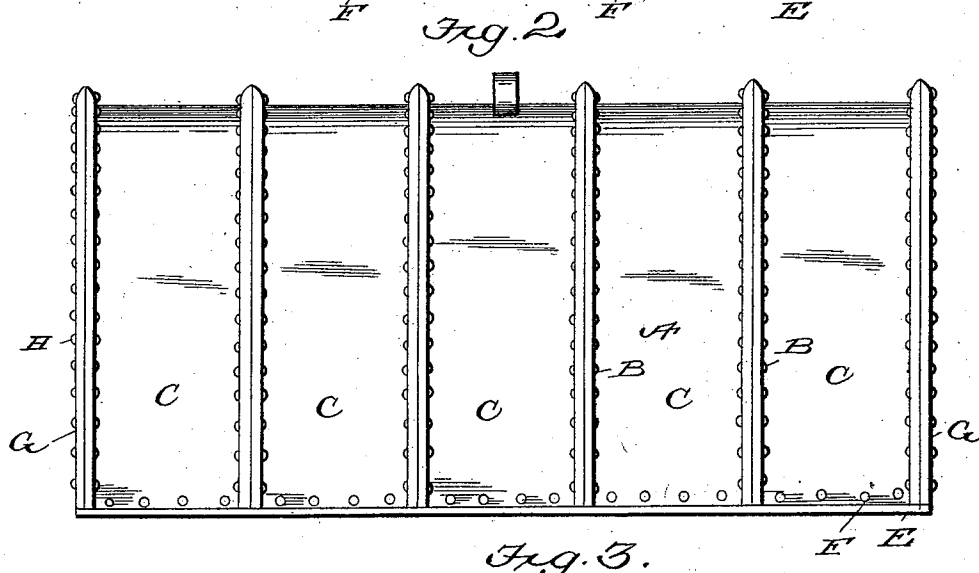
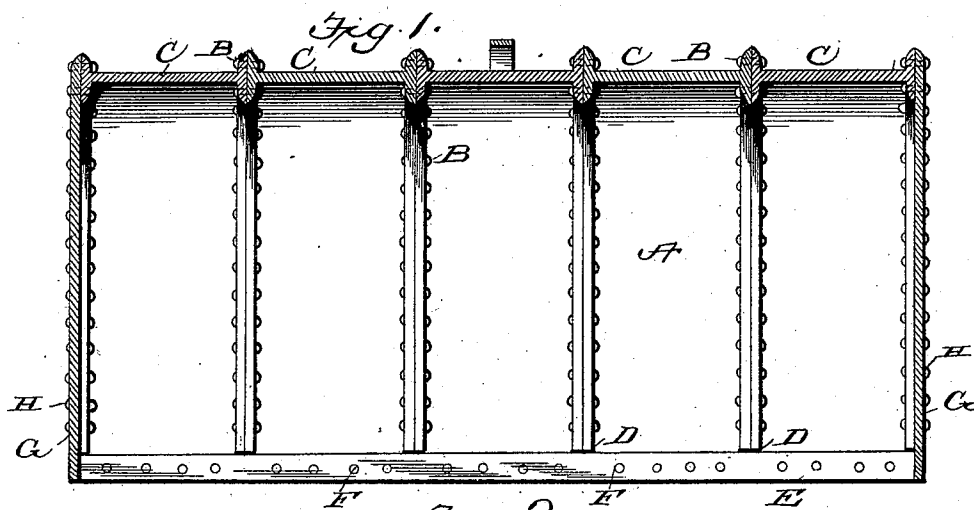


(No Model.)

W. H. WHITE.
ANNEALING BOX.

No. 527,642.

Patented Oct. 16, 1894.



Witnesses
J. H. Linn
M. A. Dean

Inventor
W. H. White
By
H. S. Willard
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. WHITE, OF APOLLO, PENNSYLVANIA.

ANNEALING-BOX.

SPECIFICATION forming part of Letters Patent No. 527,642, dated October 16, 1894.

Application filed August 11, 1894. Serial No. 520,033. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WHITE, a citizen of the United States, residing at Apollo, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Annealing-Boxes; and I do 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 appertains to make and use the same.

My invention has relation to annealing boxes adapted for annealing various articles, and especially sheets of steel and iron or malleable iron castings, and among the objects in view is to provide an extremely simple, durable and efficient annealing-box so constructed as to withstand very high degrees of heat without warping or bending, and with the above and other objects in view all of which will presently appear, my invention consists in the novel construction, arrangement and combination of parts constituting my improved annealing-box, as hereinafter fully described, illustrated in the drawings, and pointed out in the appended claims.

In the drawings, Figure 1 is a vertical longitudinal sectional view of my improved annealing-box. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical transverse section.

I would state that in carrying out my invention, I may make the box of various dimensions to accommodate a greater or less number of the sheets or plates to be annealed, which sheets or plates may also be of various lengths.

A indicates the improved annealing-box which is constructed of I-beams C arranged transversely of the box and bent to provide the arched or curved upper side or top for the box. The beams that I preferably employ are twelve inches in height and five and one-half inches across the base or flange thereof, though different sizes of beams may of course be employed. The beams are arranged so that their bases or flanges abut against each other, and they are then bolted or riveted firmly together as at B whereby an extremely firm and strong box is obtained, capable of withstanding extremely high degrees of heat without warping or bending.

The box is open at bottom and is adapted

to be placed upon and over a suitable bottom mounted upon wheels or rollers adapted to run in grooved rails or tracks, as usual in iron and steel mills or factories.

To further brace and strengthen the box I cut away the beams upon their inner sides near the bottom of the box, as seen at D, in the direction of the length of the box, and employ angle strips E, which are arranged as seen more plainly in Fig. 3, and bolted or riveted to the beams C as at F.

The ends of the box are closed by steel, iron or cast-iron heads G, bolted or riveted as at H to the ends of the outer beams C.

It will be readily seen that by my construction of annealing-box I obtain great strength throughout the entire length thereof, whatever said length may be, which is due to the inwardly and outwardly projecting flanges of the beams C being braced together at short intervals.

In using my annealing-box, the sheets to be annealed are piled upon the hereinbefore-described bottom, as usual and in such quantities as to permit the box to be placed over the same and onto the said bottom. An airtight seal is then effected at the point where the lower edge of the box meets the bottom, preferably by means of sand placed upon the outside. The whole is then rolled into the annealing furnace and the door of the latter closed, and the gas turned on to produce such a heat as is necessary to properly anneal the sheets, which heat usually varies between 1,200° and 1,600° according to the thickness of the sheets. After annealing, the box and contents are withdrawn from the furnace, and the box removed from over the annealed sheets, which latter are then removed, and the box is ready to receive another charge.

What I claim, and desire to secure by Letters Patent, is—

1. The herein described annealing-box comprising I-beams arranged transversely of the box with their bases or flanges abutting and riveted or bolted together both upon the inside and outside of the box, said beams being bent or curved to provide an arched roof or top, and sides for the box, as specified.

2. The herein described annealing box comprising I-beams arranged transversely of the

box with their bases or flanges abutting and riveted or bolted together both upon the inside and outside of the box, said beams being bent or curved to provide an arched roof or
5 top, and sides for the box, the bases of the said beams being cut away upon the interior of the box near the lower edges of the sides of the box, and angle-strips arranged longitudinally of and within the box upon each

side and riveted or bolted to the I-beams, as is specified.

In testimony whereof I affix my signature in presence of two witnesses.

WM. H. WHITE.

Witnesses:

L. G. WILSON,

T. J. BALDRIGE.