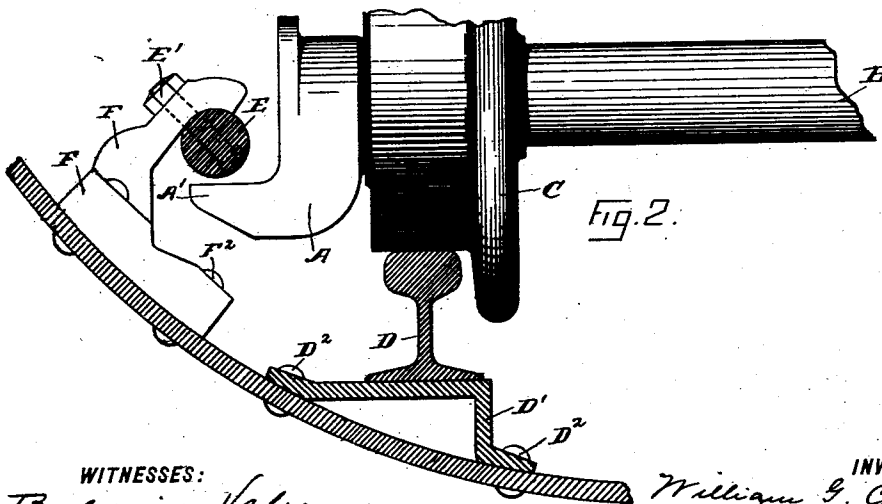
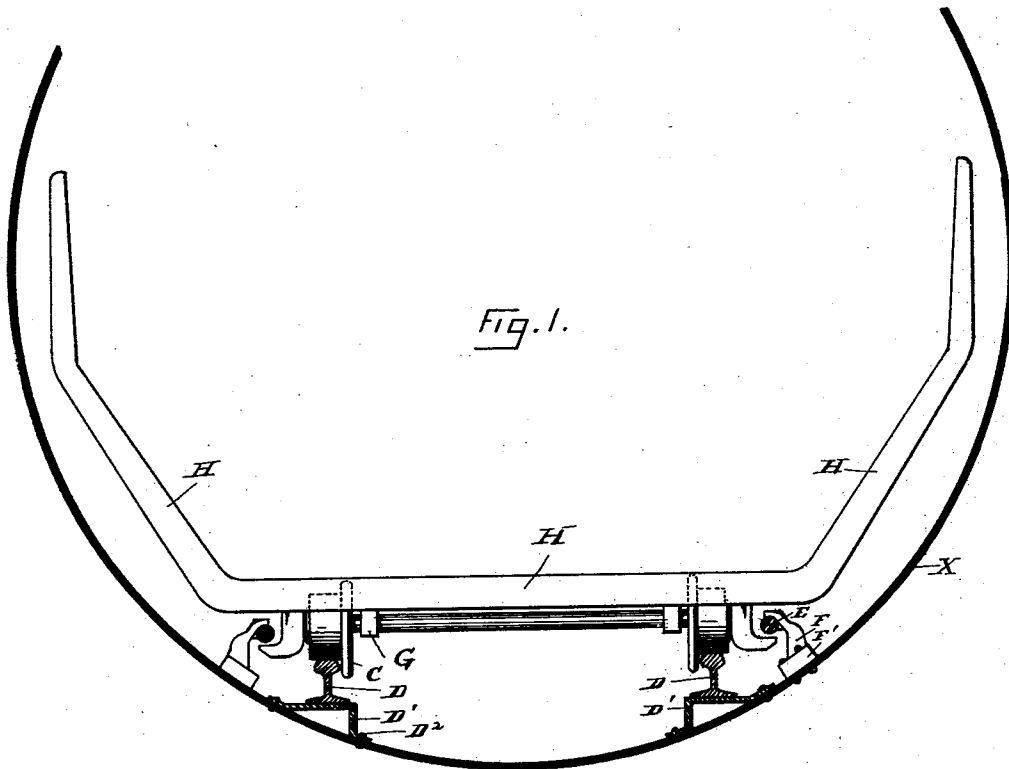


(No Model.)

W. G. CURTIS & J. D. ISAACS.
CAR AND RETORT FOR WOOD PRESERVING PLANTS.

No. 570,746.

Patented Nov. 3, 1896.



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UNITED STATES PATENT OFFICE.

WILLIAM G. CURTIS AND JOHN D. ISAACS, OF SAN FRANCISCO, CALIFORNIA.

CAR AND RETORT FOR WOOD-PRESERVING PLANTS.

SPECIFICATION forming part of Letters Patent No. 570,746, dated November 3, 1896.

Application filed November 11, 1895. Serial No. 568,615. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM G. CURTIS and JOHN D. ISAACS, citizens of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in a Car and Retort for Wood-Preserving Plants; and we do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to improvements in wood-preserving plants, and more particularly to the retorts thereof.

The objects which this invention has in view are to overcome the objection under which the retorts at present labor, which is the jamming of the cars between the retaining-guards and the rails in the event of the retorts twisting, to which they are liable, and, further, to prevent canting of the cars when lifted off the tracks by being floated by the preservative liquid.

Heretofore the retaining-guards have consisted of flanges set out from the sides of the retort to extend over the ends of the carrying-racks for holding the wood. In this construction when the car is raised by being floated off the tracks the ends of the racks strike under the guard-flanges and hold the car down, so that the flanges of the wheel do not override the rails. A great deal of objection to this construction has, however, been caused by the fact that in the alternation from heat to cold to which the retort is subjected they are liable to contract and expand unevenly to produce a twist in the body of the retort. Placed, as the old flange-guards are, so far from the track, the movement of the metal of the retort is multiplied until the variations between expansion and contraction in the metal between the flange-guard and the track exceeds the space allowed between the top of the racks and the guard. This causes a jamming of the car in the one instance and derailment in the other, as we have to contend with over-contraction or over-expansion.

This invention consists in providing the

trucks near the wheels with hooks or hangers which extend under around guard-rails secured to the sides of the retort close to the rails, and in so mounting the guard-rails as to produce a nearly straight pull on the bolts or rivets by which they are secured to the retorts, thereby avoiding any tendency to twist in the guards themselves.

In the drawings, Figure 1 is a cross-section of a retort embodying this invention, showing therein the car and its relative position to the guards. Fig. 2 is an enlarged detail showing the guard-rail and the hanger on the truck-axle.

For the purpose of description, with reference to the accompanying drawings, we will let A designate the hangers. These are mounted rigidly or pinned on the ends of the stationary axles B of the car-truck. They hang down and are provided with the extensions A', which rest under the guard-rails E. The guard-rails are mounted on brackets F, which extend upward from heavy base-blocks F'. The base-blocks are riveted to the side of the retort by the rivets F², very close to the chairs D', on which the track-rail D rests. The inner ends of the base-blocks F' are extended far enough to bring the rivets at this end nearly under the guard-rail to insure a direct pull on the rivet at the point without any chance to twist.

The guard-rails E are bolted to the brackets with bolts E', which extend through the brackets on an angle. By means of this construction the rails E may be readily lowered by loosening the bolts and placing pieces of sheet metal under the ends of the brackets F, where they extend over the rails. In this manner a ready repair may be made in the event of there arising the need for such during the progress of work with the plant. By means of this arrangement of the hangers A and the guard-rails mounted, as they are, close down to the track-rails on which the trucks run very close adjustment may be made between the hangers and guard-rails to keep the trucks on the tracks. Also, by reason of the close proximity of the track-rails and guard-rails, there is very little metal of the retort between, the twisting of which would have very little effect on the adjust-

ment between the hangers A and the guard-rails.

The construction of the trucks shown in the drawings is that usually employed. The
5 beams G extend between the front and rear axles and beyond. At proper intervals they have bolted to them the racks H, into which the ties, piles, posts, or whatever timber is being treated are packed.

10 The track-rails D rest upon and are suitably secured to the chairs D', which are riveted at D² to the sides of the retorts X.

Having thus described this invention, what we claim is—

15 1. In a wood-preserving plant, the combination of a retort provided with suitable tracks for the introduction of the loaded trucks, and having guard-rails mounted rigidly upon the sides of the retort and parallel
20 to the said tracks, and hangers mounted on the axles of the trucks and adapted to extend

under the said guard-rails, substantially as described.

2. In a wood-preserving plant, the combination of a retort provided with suitable
25 tracks for the introduction of loaded trucks, and having the guard-rails, E, rigidly attached to the sides of the retort and parallel to the said tracks, and trucks to run on said tracks and provided with hangers, A, having
30 the extension, A', to extend under the said guard-rails, substantially as described, whereby the trucks are prevented from being floated off the said tracks.

In testimony whereof we have hereunto
35 signed our names, in the presence of two witnesses, this 11th day of October, 1895.

WILLIAM G. CURTIS.
JOHN D. ISAACS.

Witnesses:

BALDWIN VALE,
E. F. MURDOCK.