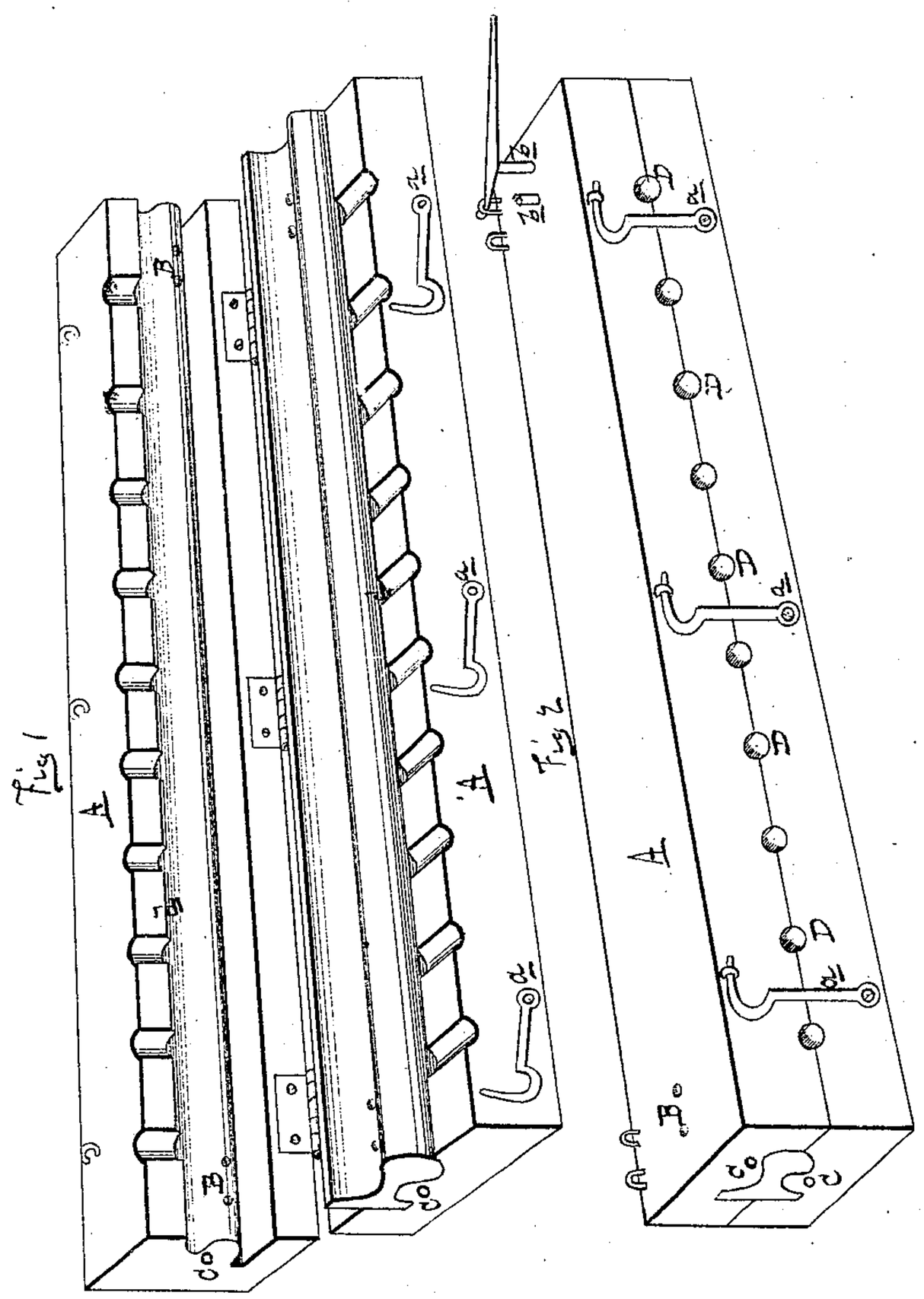
J. Burt,

Rail Finishing Case.

No. 98224. Patented Dec. 28. 1869.



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United States Patent Office.

JOHN BURT, OF DETROIT, MICHIGAN.

Letters Patent No. 98,224, *dated December* 28, 1869.

FINISHING-CASE FOR RAILWAY-BARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN BURT, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and useful Improvement in Finishing Carriage for Railway-Bars; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 shows my device open, with a rail therein. This device I call a rail-finishing carriage.

Figure 2 shows the device closed and in perspective.

Like letters indicate like parts in each figure.

The object of this invention is to construct a heavy metallic case, in two sections, suitably hinged together, whose interior shall accurately fit, and whose length shall be equal to the length of a railway-bar, and wherein the rail, which is bent when it leaves the finishing-rolls, may be received and straightened, that is, provided with suitable channels, through which water or other suitable cooling-fluids may be brought to act upon the head of the rail, while hot, thereby hardening said head; wherein the rail may be presented to the saws usually employed to cut off the ends, and suitable punches may be brought into action, to punch the bolt-holes through the web of the rail, by means of which holes and proper bolts, fish-plates may be, when desired, secured to the rail, proper holes through the top of the box or case acting as guides to the punches, and wherein the rail will be so tightly clasped that its ends may be made more dense and compact, by being upset by blows upon its ends, without the shape or size of the rail being altered thereby, the whole forming a valuable adjunct to every rail-mill, and enabling the operators to do away with the straightening-press, and its slow and imperfect operation, to harden the head of the rail without affecting the foot or web, to allow the latter to be punched while being straightened, and the ends to be hammered to increase their hardness, without the necessity of so frequent handling and so much manipulation as is now required in finishing a railway-bar.

In the drawings—

A represents a rectangular case, of any desired length, made in two transverse sections, and suitably hinged together, as shown, so that the two sections will open and close readily, and when open, stand at right angles, or nearly so, with each other.

This box should be of metal, and sufficiently heavy and strong not to spring in any direction when in operation.

The interior should be made in each section to fit one side of the rail, so that when closed, it will closely fit and clasp the rail upon all sides.

The rail, as it comes from the finishing-rolls, is hot, and generally warped and twisted. The case being open, and ready to receive the rail, it is placed therein, and the box closed.

Any suitable fastening, *a*, may be employed to hold the two sections of the case in position when closed, and the fastenings may be such as will compel the upper section to close on the lower, when the twist of the rail prevents this from being readily done.

The lower side of the case being fitted with proper wheels, and the rail being inclosed in the case, the whole is presented to the saws, which cut off the ends of the rail which project from the ends of the case, so that the rail will be left the desired length.

B are holes, which pass through the case in a vertical direction, of the proper size to act as guides to suitable punches *b*, with which the fish-plate bolt-holes are punched in the web or neck of the rail.

The punches may be operated by any convenient device, and should be used while the rail is hot.

C are openings in the end of the sections, which connect with channels *d*, through which water may be admitted to contact with the head, thereby cooling it, and hardening said head when desired.

D are other openings in the side of the case, which also connect with the channels *d*, and through which water may be admitted when more convenient.

The case accurately and closely grasping the rail, if it is desired to hammer the ends thereof, to make them harder and less liable to lamination, the ends may be hammered, without any danger of changing the form and size of the rail.

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

The case or finishing-carriage A, constructed as described, whereby railway-bars may be straightened, punched, sawn off, upset, hammered, cooled, and hardened while in said case, substantially as herein set forth.

JOHN BURT.

Witnesses:

H. S. SPRAGUE,

JAS. I. DAY.