G. O. Taylor,

Rail Joint.

No. 105,863. Patented July 26. 1870.

FIG. 1.

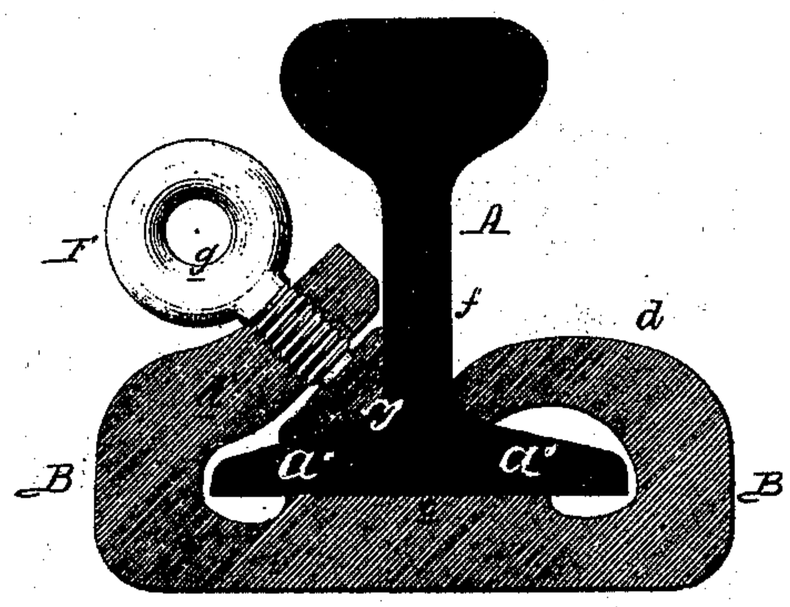
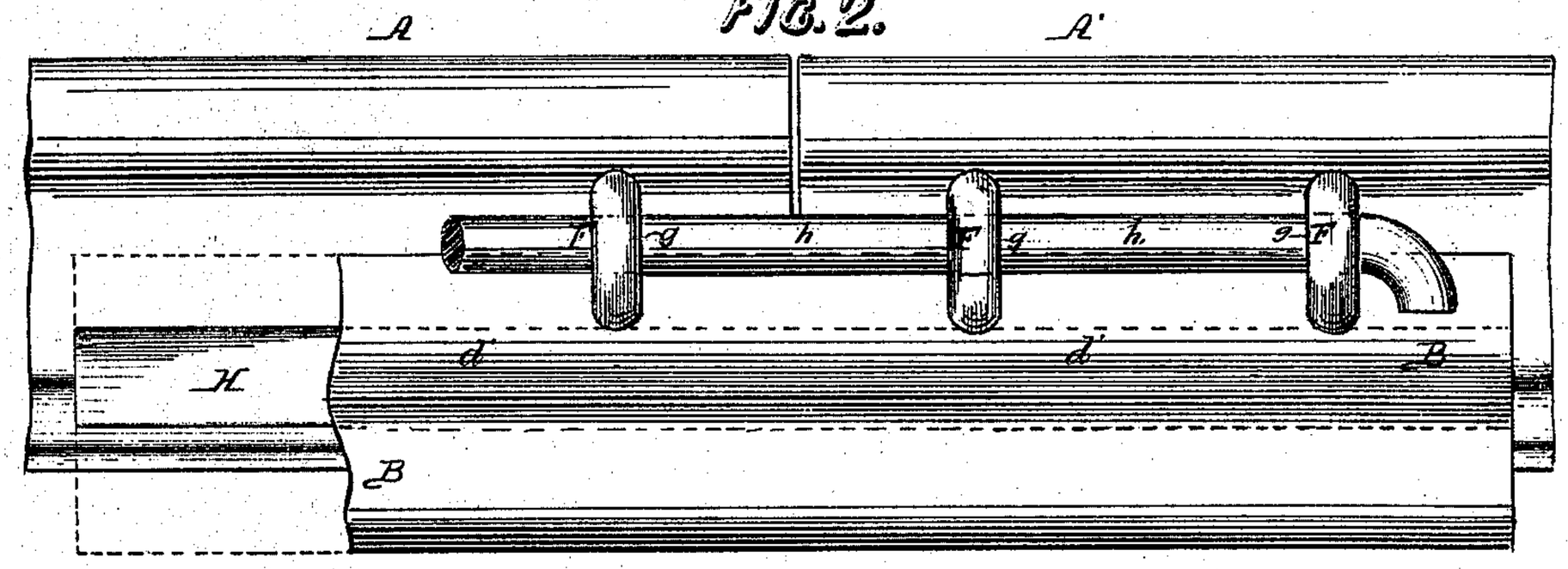


FIG. 2.



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GEORGE OSCAR TAYLOR, OF HAMILTON, VIRGINIA.

Letters Patent No. 105,863, *dated July* 26, 1870.

IMPROVEMENT IN RAILROAD RAIL-SPLICE.

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

I, GEORGE OSCAR TAYLOR, of Hamilton, county of Loudoun, State of Virginia, have invented an Improved Rail-Splice, of which the following is a specification.

Nature and Object of the Invention.

My invention consists of a certain splicing-clamp, set-screws, and angular plate, adapted to the ends of two adjacent rails, as fully described hereafter, the whole forming a splice of great strength, which will retain the rails in perfect continuity without requiring any cutting of the same.

Description of the Accompanying Drawing.

Figure 1 is a transverse sectional view of my improved rail-splice, and

Figure 2, side view of the same.

General Description.

A and A′ represent the ends of the two adjacent rails, which are to be joined together, and

B, a clamping-bar or plate, of the peculiar bent form shown in fig. 1, which is fitted around the lower flanges *a a′* of the said rails.

The clamp B has a longitudinal rib, c, which forms a rest or bearing for the bottoms of the rails, and the edge *d* of the said clamp is bent upward and inward, so as to bear against each rail at the point *x*, or in the angle between its web *f* and flange *a*.

The opposite edge *d′* of the said clamp is also bent upward and inward, and carries four or other suitable number of set-screws, F, the inner ends of which bear against a plate, H, of about the same length as the clamp, and which is adapted to the angle *y*, formed between the web and flange *a′* of each rail.

I prefer to make the set-screws with rings or eyes *g*, through which to pass a retaining rod, *h*, as shown in fig. 2, this being a ready method of preventing the loosening of any of the said screws, owing to the jarring and vibrations to which the rails are constantly subjected.

When adapting the above splice to the ends of the two rails, and on tightening up the screws, the clamp B will first turn about the bearing-point or angle *x* until the rib *c* is brought against the bottoms of the rails, and, on continuing to work up the screws, the plate H will be forced tightly into the angle *y* between the web and flange *a′* of the rails.

It will thus be seen that, when the splice is tightened, a pressure will be exerted upon the rails at three distinct points, and those the most advantageous for resisting all ordinary strains, namely: at the bottom and in the angles between the web and the lower flanges of each of the said rails.

In splices or joints of this class as heretofore constructed, it has been customary to exert a downward pressure upon the flanges *a* and *a′* of the rails, but at points remote from the central web *f*. Such splices, however, have been found incapable of resisting lateral strains, for the reason that the points of bearing upon the flanges are too far apart.

In my improved joint the upper bearings in the angles *x* and *y*, are as close together as when fish-plates are employed, but no objectionable cutting, and consequent weakening, of the rails is required, as with the latter, and the pressure being exerted on both sides at an angle of about forty-five degrees to the bottoms of the rails, there will be little tendency of either of the latter to be thrown out of line, either horizontally or vertically.

The object in using the plate H is to insure a direct and continuous pressure of the set-screws in the angle *y*, for, if the screws were used alone at this point, the pressure might be exerted against the web or lower flange only.

In order to prevent twisting of the joint, the clamp may, if desired, be made to touch, or nearly touch, the outer edges of the lower flanges of the rails.

Claim.

The within-described rail-splicing clamp B, its bearing points *x* and *c*, screws F, and the plate H, with its bearing point *y*, the whole being adapted to the rails, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE OSCAR TAYLOR.

Witnesses:

SAMUEL H. LOVE,

LEWIS TAYLOR.