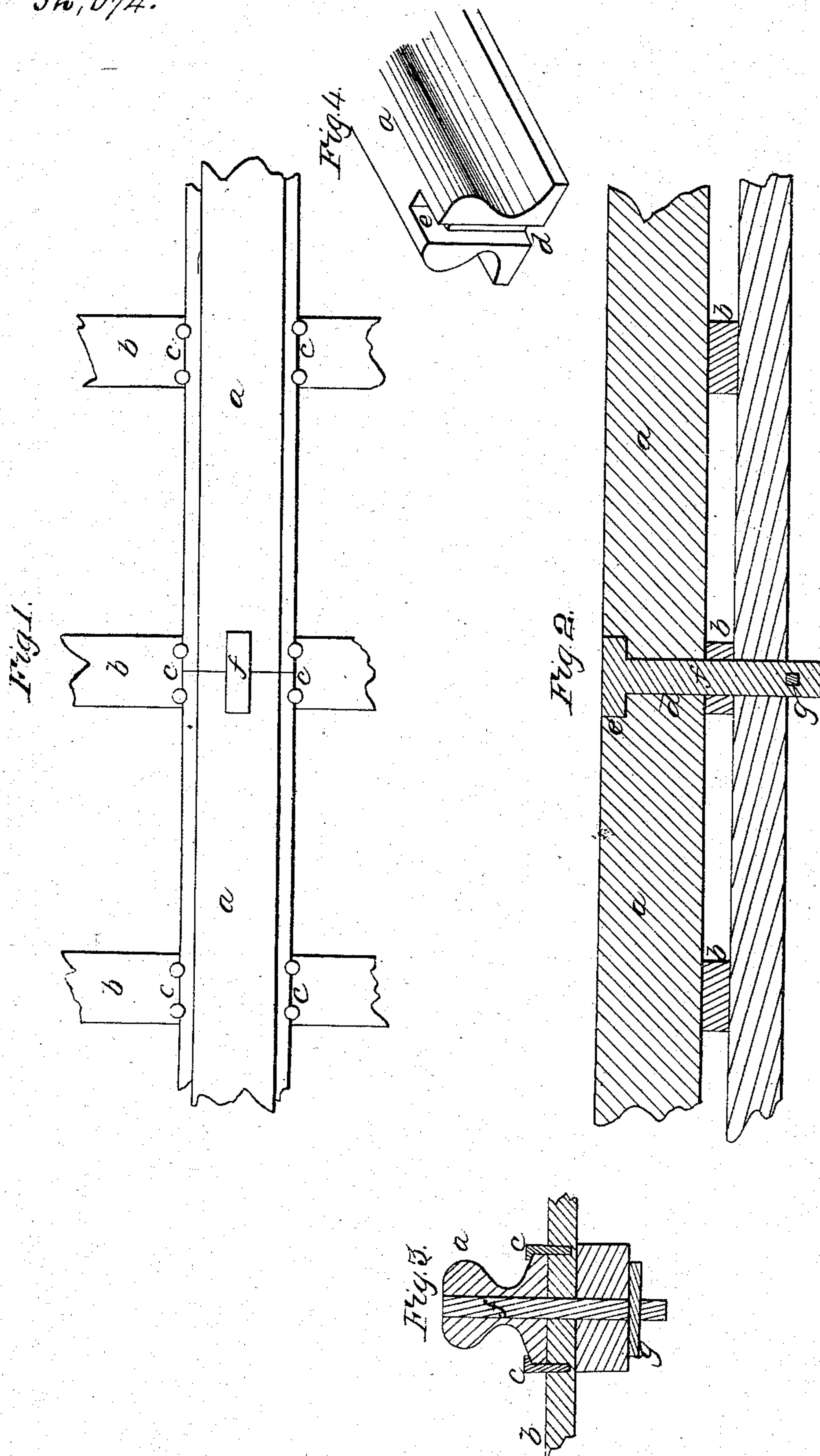


B. A. Mason.

Railroad Rail Joint.

N^o 1,070.
32,074.

Patented Apr. 16, 1861.



Witnesses:
Amos D. Lefin
Rm. Bradford

Inventor:
Bery A. Mason

UNITED STATES PATENT OFFICE.

BENJAMIN A. MASON, OF NEWPORT, RHODE ISLAND.

SPLICING RAILS FOR RAILROADS.

Specification of Letters Patent No. 32,074, dated April 16, 1861.

To all whom it may concern:

Be it known that I, BENJAMIN A. MASON, of Newport, in the State of Rhode Island, have invented a new and useful Improvement in Splicing Rails for Railroads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a plan; Fig. 2, a longitudinal vertical section; Fig. 3, a cross vertical section; and Fig. 4, a perspective view of the end of a section of rail.

The same letters indicate like parts in all the figures.

In the accompanying drawings (*a, a*) represent two sections of rails spliced on my improved plan, and otherwise secured to the cross ties (*b*) by spikes (*c, c*) in the usual manner. The splice is formed by cutting or otherwise forming a central slot (*d*) in each end of each section, and extending through the entire depth. These slots I prefer to make with their sides parallel with each other and with the edges of the rails, although they may vary slightly from such parallelism; and I form them from the bottom of the rail to within about two inches from the top of the rail to extend in about two inches from the end, and then for the residue of the height to extend about double that distance as at (*e*) so that when the ends of two sections are put together the two slots will represent a (T) formed mortise. I then form a splicing piece (*f*) with a head to fit the upper or elongated portion (*e*) of the mortise, and with a shank to fit the rest, and to extend down through a hole in the cross tie. When put in place and driven down the head of this splicing piece should fit and just fill up the part (*e*) of the two sections, with the under shoulders of the said splicing piece resting on the shoulders of the two slots while the upper

surface is flush with the top of the rail. The end of the splicing piece is made with a cross hole or mortise to receive a wedge formed key (*g*) to draw down and secure the said splicing piece and with it the ends of the rails so that they shall be firmly secured in place. By this mode of splicing, the splicing piece holds firmly in place both sections of the rail so that neither of them can rise or move laterally independent of each other, while at the same time the several sections of rails are free to expand and contract under variations of temperature; and what is of great importance by withdrawing the fastening key and taking out the splicing piece, which can be readily done, sections of rails can be taken out of the line and replaced with very little labor. As the fastening keys (*g*) are below the cross ties they will be surrounded by the well packed earth forming the bed of the track which will prevent them from being loosened by the concussions and tremulous motions of passing trains; but if desired these keys may be further secured by any of the known means for holding wedge keys. And instead of the key (*g*) other and equivalent means of fastening may be substituted.

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

Splicing the sections of rails for rail-roads by slotting the ends thereof, substantially as described, in combination with the vertical splicing piece with its elongated head fitted within the elongated portion of the slots and resting on the shoulders thereof, and with its shank passing down through the residue of the slots and through the cross ties, and secured below by a key or its equivalent, substantially as specified.

BENJ. A. MASON.

Witnesses:

WM. GILPIN,
R. M. BRADFORD.