

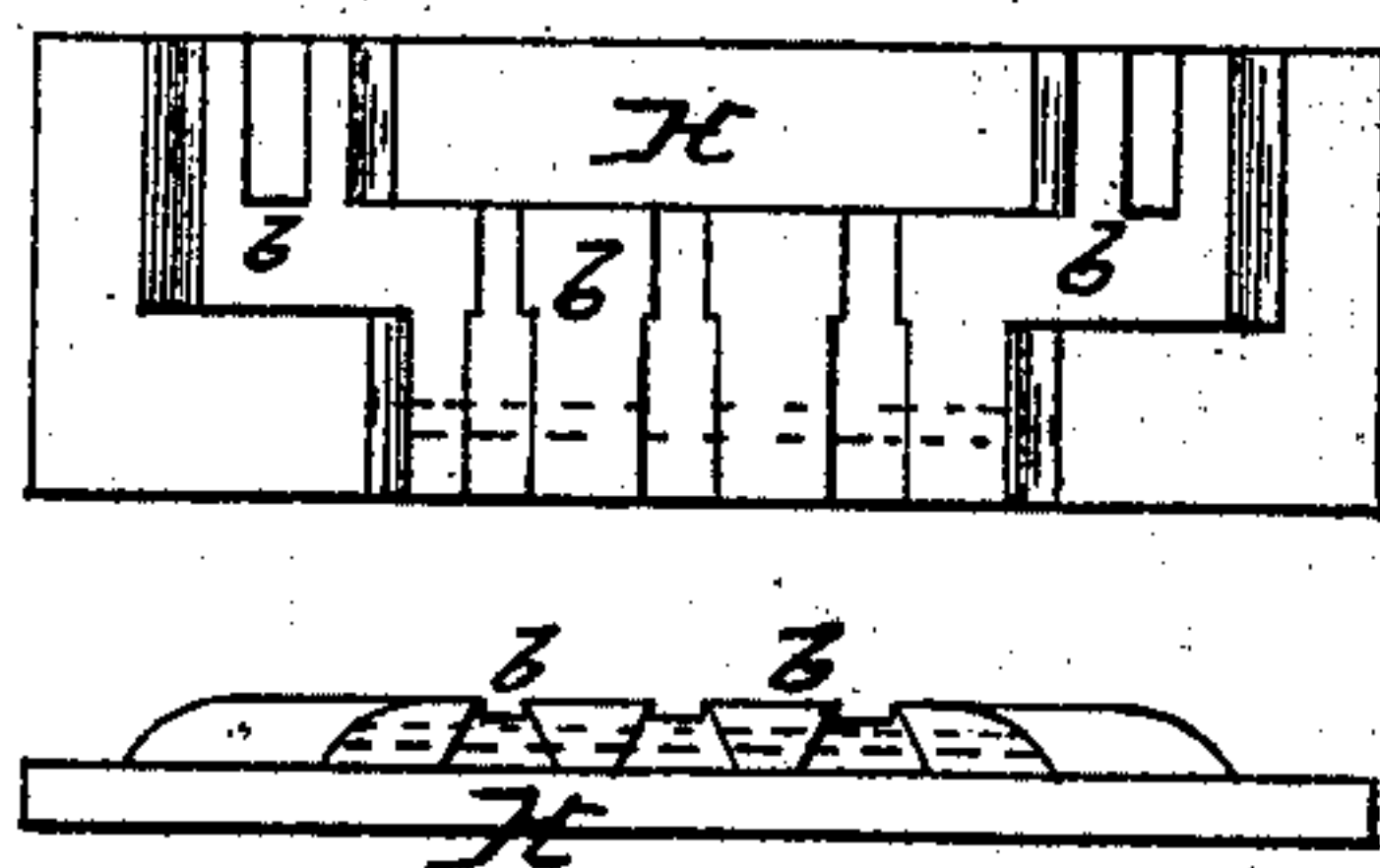
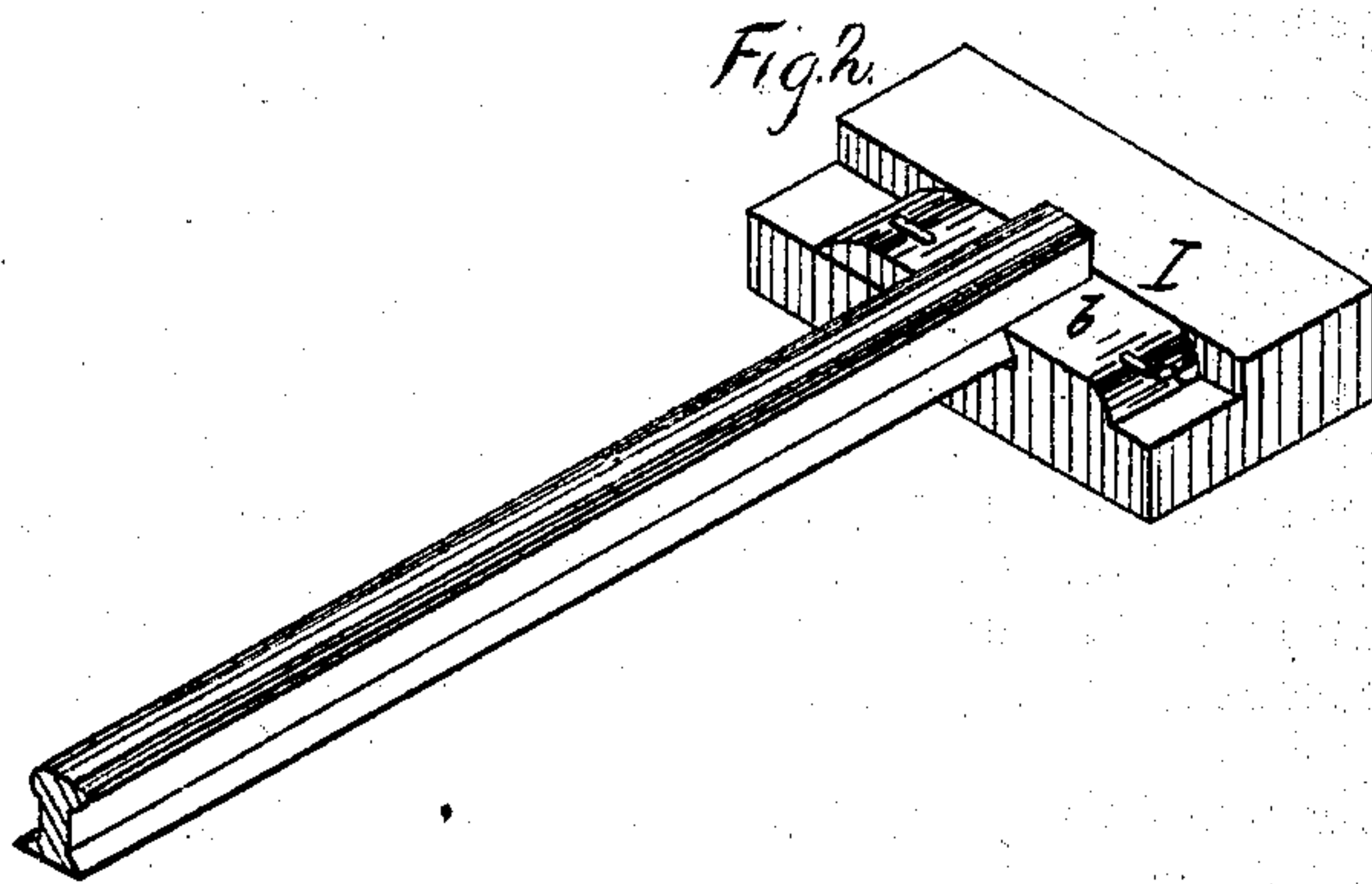
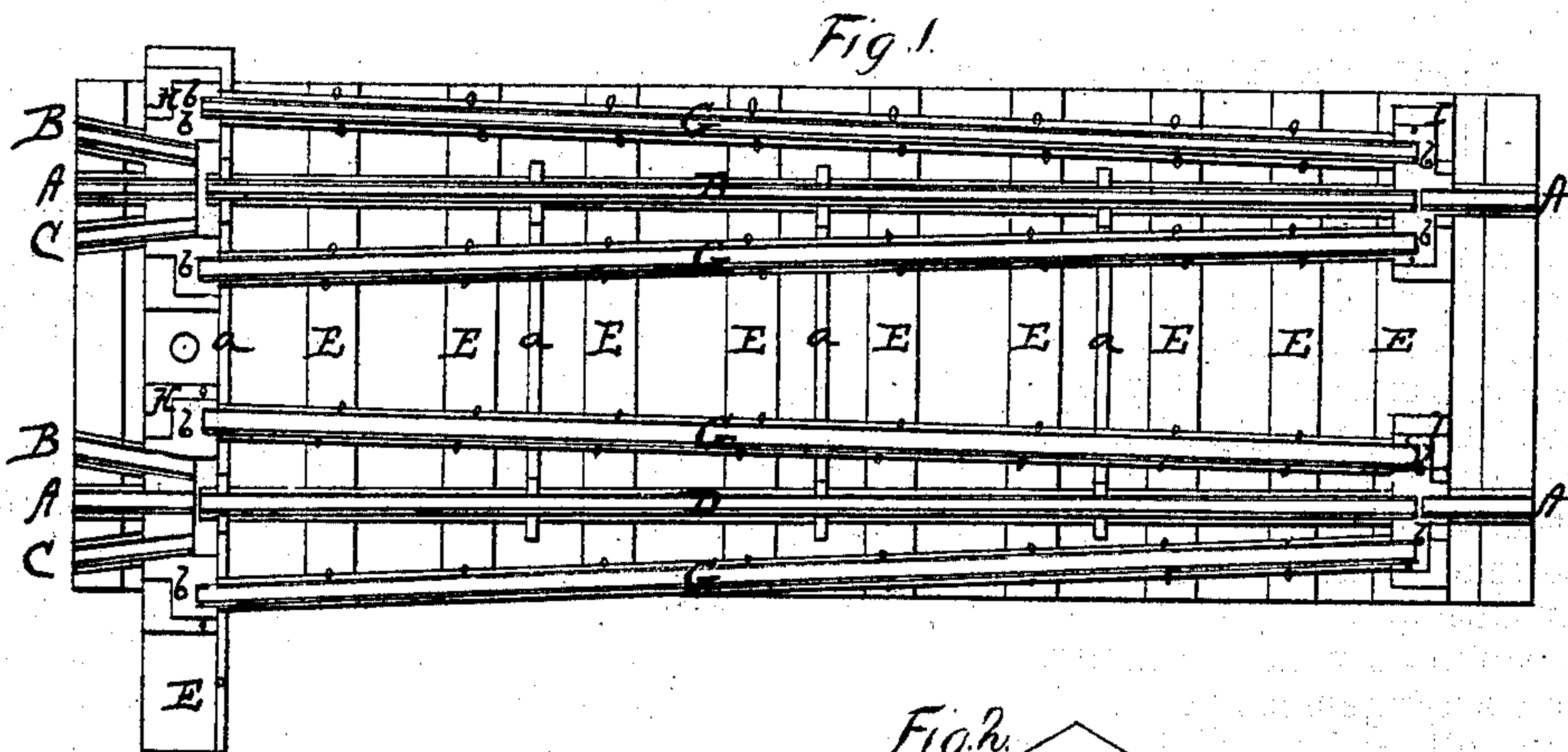
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WILLIAM L. MARTIN.

Improvement in Railroad Switches.

No. 122,271.

Patented Dec. 26, 1871.



Witnesses:

Jas. C. Hutchinson
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 Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM L. MARTIN, OF RIENZI, MISSISSIPPI.

IMPROVEMENT IN RAILWAY SWITCHES.

Specification forming part of Letters Patent No. 122,271, dated December 26, 1871.

To all whom it may concern:

Be it known that I, WILLIAM L. MARTIN, of Rienzi, in the county of Alcorn and in the State of Mississippi, have invented certain new and useful Improvements in Railroad Switch and Chair; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a railroad switch and chair, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my railroad switch and chair. Fig. 2 is an enlarged perspective view of a rail with chair at the end; and Fig. 3 is an enlarged representation of the railroad chair at the switch.

A A represent the rails of the main track; B B and C C, the rails of the side tracks; and D D, the switch-rails. E E represent the ties, which in the usual switches are not connected together on account of the switch-rails moving on the same. These ties I connect, either on one or both sides of each switch-rail, with a rail, G, extending over the same ties as the switch-rails, and firmly spiked to the same. The rails G G, which I call check-rails, may be any old rails unfit for other service. They hold the ties firmly in position. Heretofore the ties under the switch-rails very often came loose and twisted around out of their places from not being connected; but by the use of the check-rails this difficulty is avoided. When placed between the switch-rails the check-rails G G also answer the purpose of keeping the switch-rails down to the ties. The switch-rails D D are connected in the usual manner by rods *a a*, which pass under the inner check-rails G G. When the front wheels of a locomotive or car strike the ends of the switch-rails it has

a tendency to throw the other ends upward; but by passing the rods *a a* under the check-rails this cannot happen, and the switch-rails are held down to the ties. At the ends of the switch-rails D D are chairs H and I, into which the ends of all the rails at these points are inserted and secured, the object being to prevent the jamming of the switch by expansion and the disjointing of the switch by contraction. These chairs are let into the ties—that is, the bed of the chair—and are provided with shoulders or abutments *b*, across which the rails haunch. The chairs are to be thick enough and broad enough to withstand any pressure that might be brought upon them by the expansion of the rails in the hottest weather. The longest chair H for a “three-throw” switch should have a bed from one and one-quarter to one and one-half inches thick, and from twelve to fourteen inches wide, and the shoulders or abutments *b* should be as thick as the bed and two and one-half inches wide. Through the abutments *b* and the ends of the rails are placed horizontal wrought-iron keys *d*, about one-half inch thick by one and one-half wide, so as to withstand the contraction of the rails, and thus prevent disjointing of the switch.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the sliding rails D D of a railroad switch, the stationary check-rails G G bolted to the cross-ties E E and arranged on one or both sides of the moving rails, as and for the purposes set forth.

2. The combination of the chairs H I with shoulders or abutments *b b* and the keys *d d*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of October, 1871.

Witnesses: WILLIAM L. MARTIN.

C. L. EVERT,
B. H. BAILEY.

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