(No Model.)

S. K. MILLER.

RAILROAD TIE.

No. 589,664. Patented Sept. 7, 1897.

Fig 1

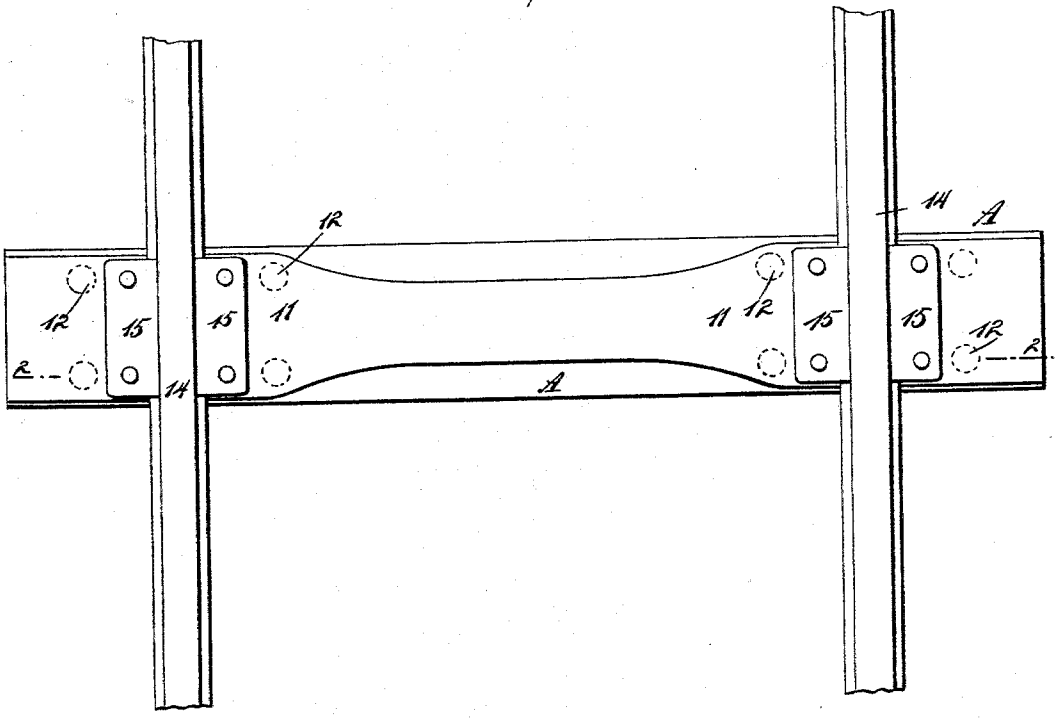
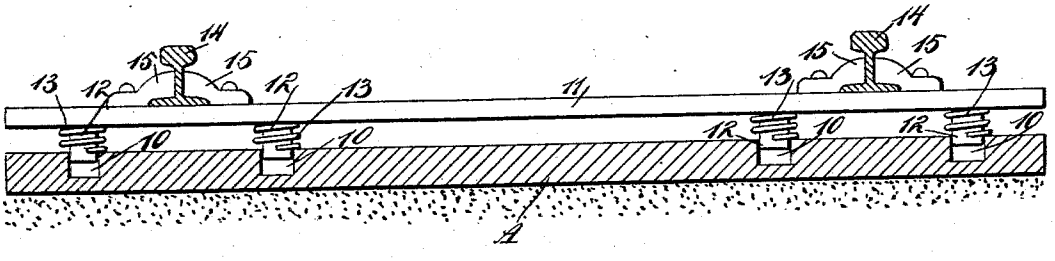


Fig 2



WITNESSES:
H. Walker
J. Ridd Ackers.

INVENTOR
S. K. Miller.
BY Munn & Co.
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

STEPHEN KYLE MILLER, OF NEWTOWN, OHIO.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 589,664, dated September 7, 1897.

Application filed April 30, 1897. Serial No. 634,521. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN KYLE MILLER, of Newtown, in the county of Hamilton and State of Ohio, have invented a new and Improved Railroad-Tie, of which the following is a full, clear, and exact description.

The object of the invention is to provide a railroad-tie of metal and to so construct the tie that the rolling-stock passing over the rails will be subjected to the least possible amount of wear and likewise the rails over which said rolling-stock passes.

Another object of the invention is to construct a metal railway-tie which will be light, durable, and economic.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improved railway-tie, and Fig. 2 is a longitudinal vertical section taken substantially on the line 2 2 of Fig. 1.

The railway-tie consists of a body A and a top section 11. The body is given the shape usual to railway-ties, but the top section can be made narrower at its central portion and usually is so made. In the top of the body A of the tie near each end preferably four holes or recesses 10 are made, the holes or recesses being shown in transverse and longitudinally-alining pairs. A corresponding number of lugs or pins 12 is attached to or made integral with the under face of the top section 11 of the tie, and these pins, lugs, or posts 12 are so grouped that one of them will enter each of the openings or recesses 10 in the body of the railway-tie and will have free end movement therein. A spring 13 is coiled around each pin or post 12, having bearing upon the upper face of the body of the tie and against the under face of the top section 11. The springs will hold the top section 11 a sufficient distance above the body of the tie, and the springs will normally be so strong that the weight of a passing train will not force the top section downward to a contact with the bottom section. Therefore a passing train will have practically a cushioned surface to travel on throughout the length of the track.

The rails 14 may be of any desired shape and are laid in the usual manner transversely across the upper face of the upper movable section of the ties, being firmly held in place on these movable sections of the ties by means of chairs or clamps 15 of suitable construction. In the drawings the clamps are shown as of angular construction, engaging with the webs of the rail, the flanges thereof, and with the upper surface of the upper section of the tie.

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

1. A railway-tie consisting of a body adapted to be stationary, and provided with openings in its upper surface, and an upper section parallel with the body-section, provided with pins extending from its under surface into the openings of the body-section, and springs coiled around said pins, having a bearing against each section of the tie.

2. The combination, with the body portion of a railway-tie having openings at its upper surface, of an upper parallel section provided with pins which extend loosely into the openings of the body-section, springs coiled around the pins, having bearing against both sections of the tie, and fastening devices for rails located upon the upper section of the tie between the pins.

3. In a metal railway-tie, the combination, with a body-section adapted to be fixed in the ground, and provided near each of its ends with a series of openings, of an upper section for the tie, likewise of metal, pins secured to the under face of the upper tie-section, having end movement in the openings in the body-section, springs coiled around said pins, engaging with opposing faces of the two sections of the tie, and angular clamps arranged in pairs between the pins of each end series, the clamps being adapted to hold a rail between them.

STEPHEN KYLE MILLER.

Witnesses:
S. B. DEAL,
ELDON PRICKETT.