

(No Model.)

W. T. WILKINSON.
METALLIC RAILROAD TIE.

No. 602,789.

Patented Apr. 19, 1898.

FIG. 1.

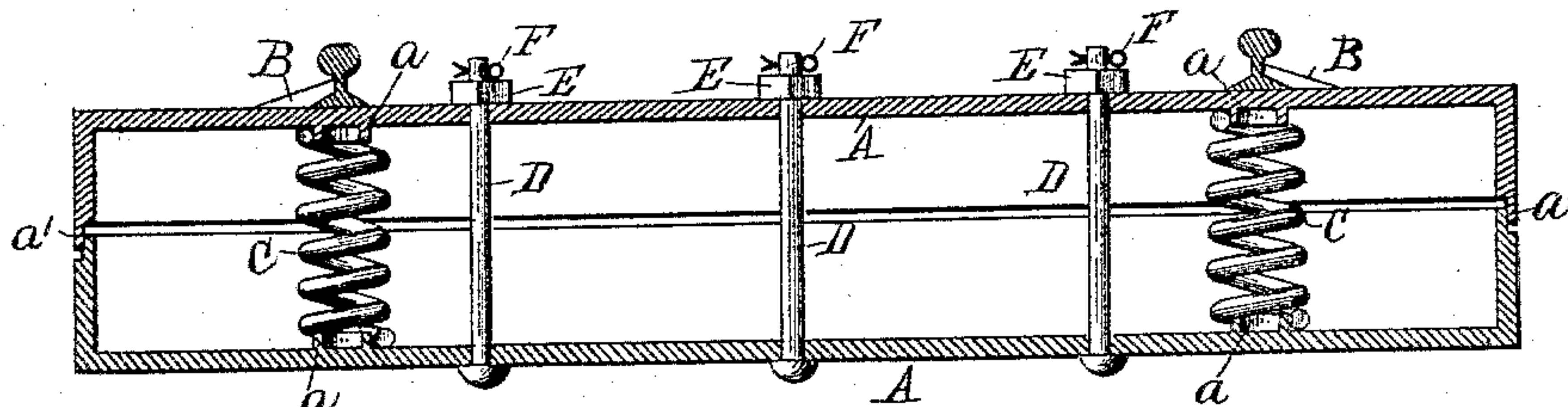


FIG. 2.

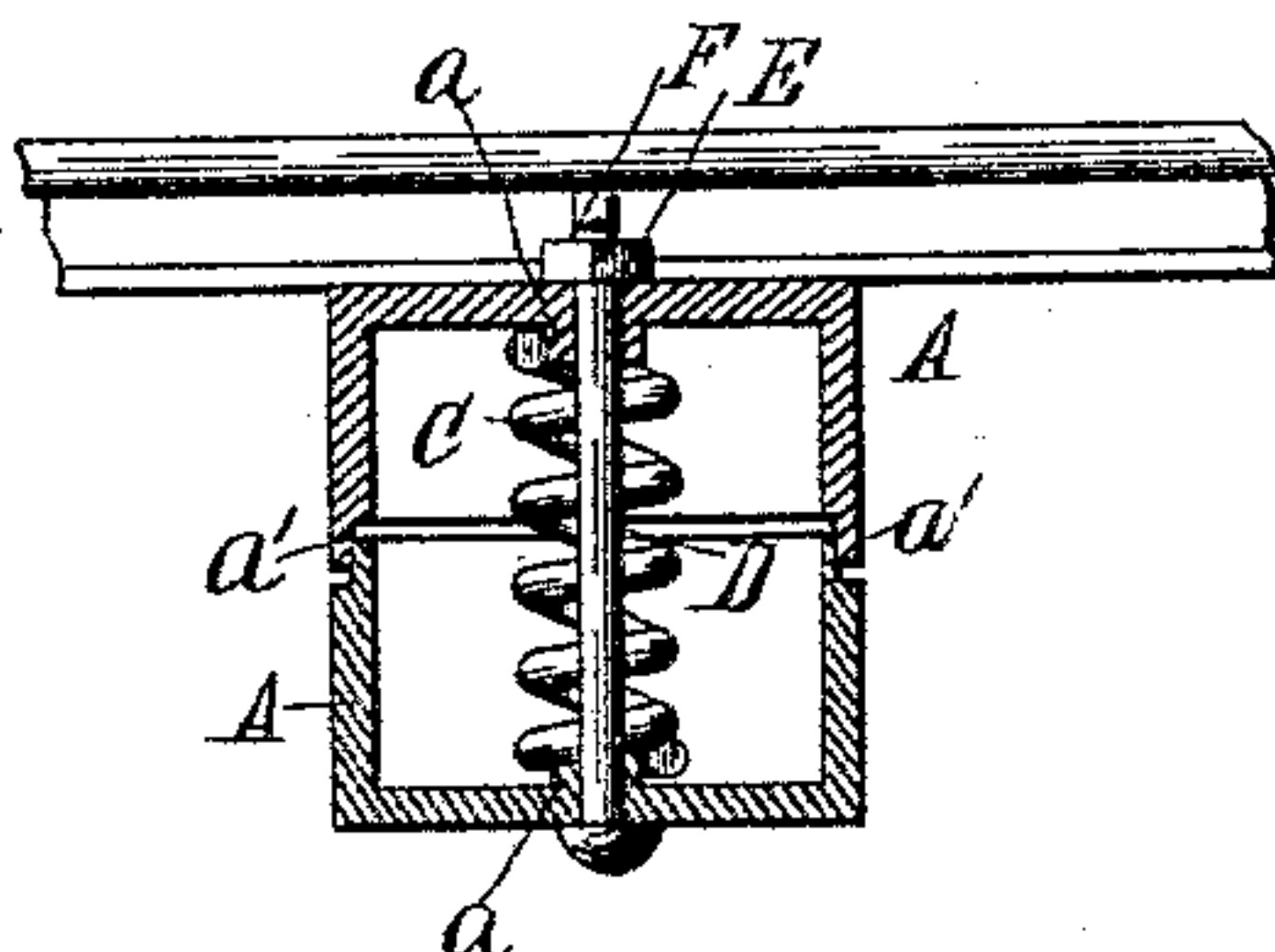


FIG. 3.

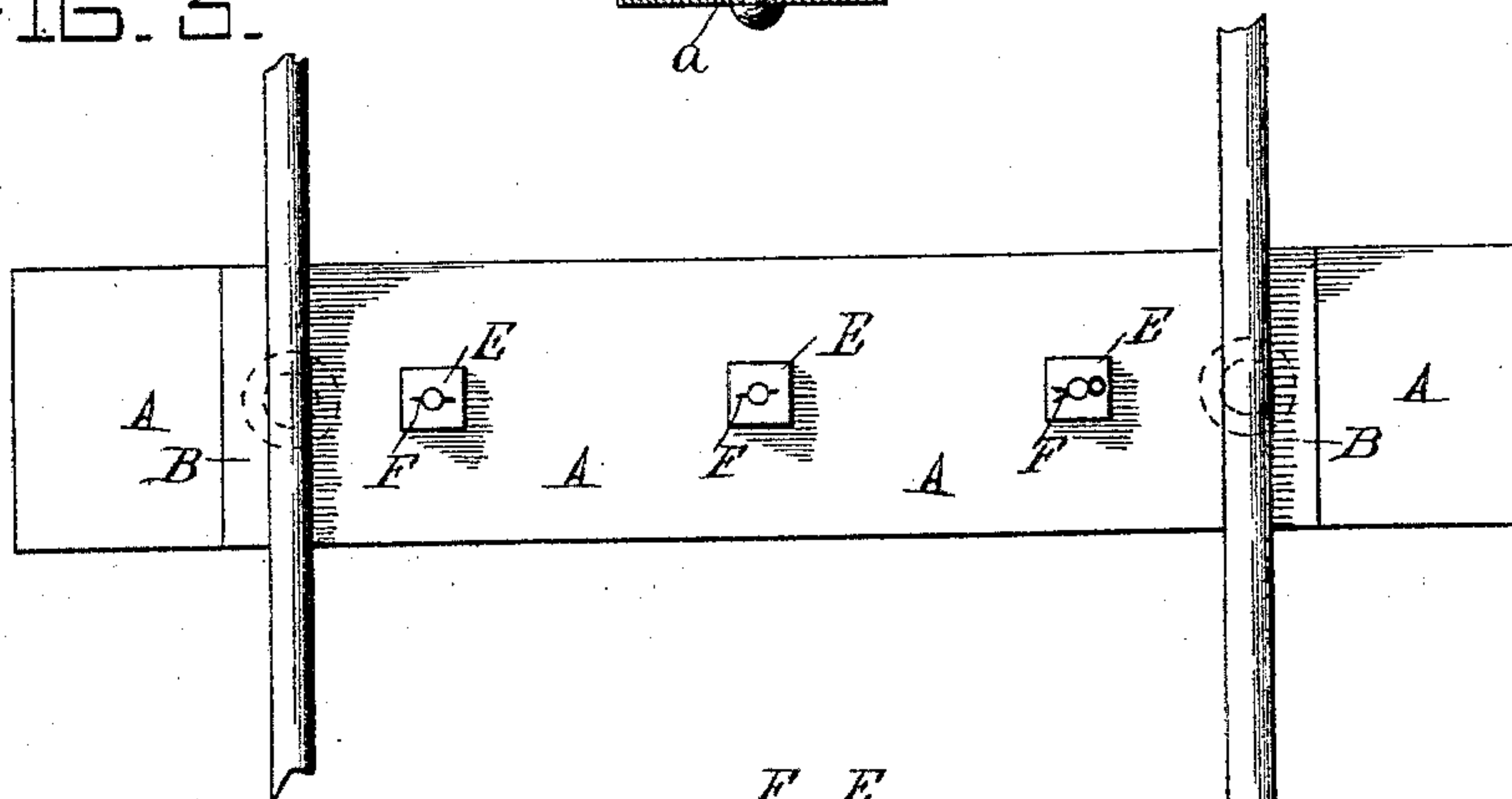
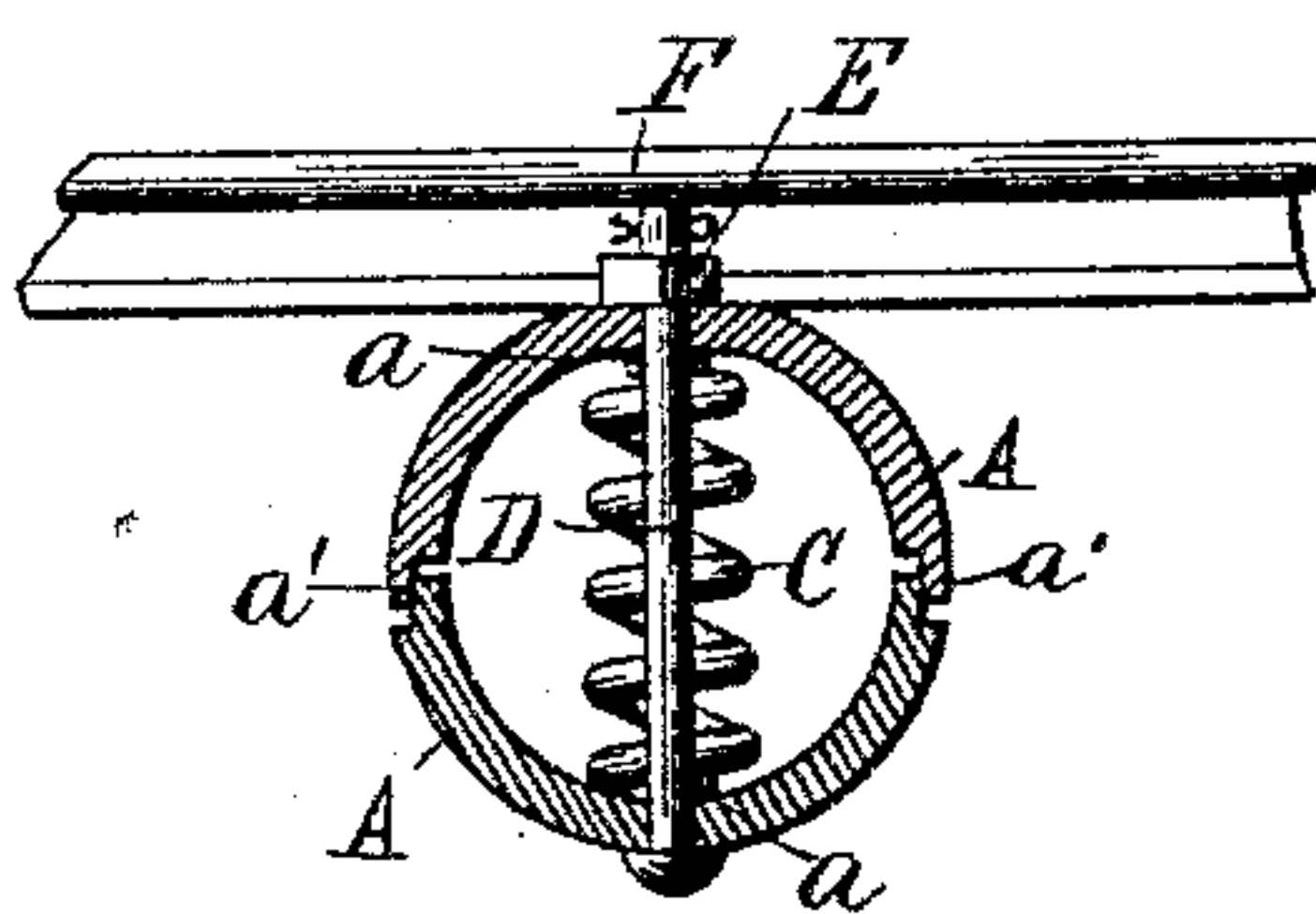


FIG. 4.



WITNESSES

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METALLIC RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 602,789, dated April 19, 1898.

Application filed December 4, 1896. Serial No. 614,508. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM THOMAS WILKINSON, a citizen of the United States, residing at Lafayette, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Metallic Railroad-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to railway-ties; and it has for its object, among others, to provide a simple, cheap, yet durable and efficient railway-tie having such resiliency or elasticity as to yield under the weight of the train passing over the same, thus effecting not only a saving in the wear of the engine and coaches, but also rendering the travel much smoother, and hence affording greater comfort to the passengers. I form the tie in sections detachably and adjustably connected and provided with interposed springs arranged directly beneath the rails. The springs are so arranged as to prevent their displacement or disengagement under the movements of the tie.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical longitudinal section through my improved tie. Fig. 2 is a vertical cross-section. Fig. 3 is a plan showing the ties and rails in position, and Fig. 4 is a vertical cross-section showing a modified form.

Like letters of reference designate like parts throughout the several views.

Referring now to the details of construction by letter, A A designate two sections of the tie of ordinary length and formed of metal, the same being reversely arranged and of any desired contour in cross-section. In Fig. 1 there are shown as cast or otherwise formed upon their inner faces lugs or projections *a*, which serve as the retainers for the springs, as will hereinafter appear. At the edges they are formed with the alternately-disposed por-

tions *a'*, as seen in Fig. 1, which when the sections are placed together overlap each other and serve to close the joint and prevent ingress of rain, snow, or dirt.

B B are the chairs arranged upon the upper face of the upper section of the tie, as shown.

At C are springs detachably arranged within the two sections of the tie beneath the rails and held in position by means of the lugs or projections *a*, as indicated. They may be readily removed from the side when desired, one section being removed or lifted from the other sufficiently for this purpose.

The sections of the tie are detachably and adjustably united, so as to regulate the tension of the springs, as may be desired, by the tie-bolts D, which pass upward through coincident openings in the two sections of the tie and upon their upper ends receive the nuts E, and after the nuts are screwed in place pins or spring-keys F are passed through openings in the ends of the bolts, as indicated, and their ends then bent at an angle to their length, so as to prevent their disengagement, as indicated. The nuts serve to limit the outward movement of the tie-sections and also provide for the adjustment of the spring and for securing the sections together.

The contour of the tie may vary, and in Fig. 4 I have shown a form different from that in Figs. 1 and 2 in that the complete tie is substantially circular in cross-section; but this is but one of the numerous forms that may be adopted.

The rails may be held in place in any suitable manner, being engaged beneath the chairs and then secured by spikes of the ordinary form or similar to those in use, with threaded ends and nuts engaging the same.

The tie may be provided with removable portions, if desired, opposite the springs, so as to permit ready access thereto when necessary.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages. For instance, the means for holding the springs may be either a single pin or projection or two projections or lugs.

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

A railway-tie formed of two opposing, hollow one-piece sections overlapping at their edges to permit of vertical play, springs arranged between the sections, and vertical tie-
5 bolts adjustably and detachably connecting said sections, substantially as described.

In testimony whereof I have signed this

specification in the presence of two subscribing witnesses.

WILLIAM THOMAS WILKINSON.

Witnesses:

W. S. RUSSELL,

H. S. SCOTT.