

No. 668,423.

Patented Feb. 19, 1901.

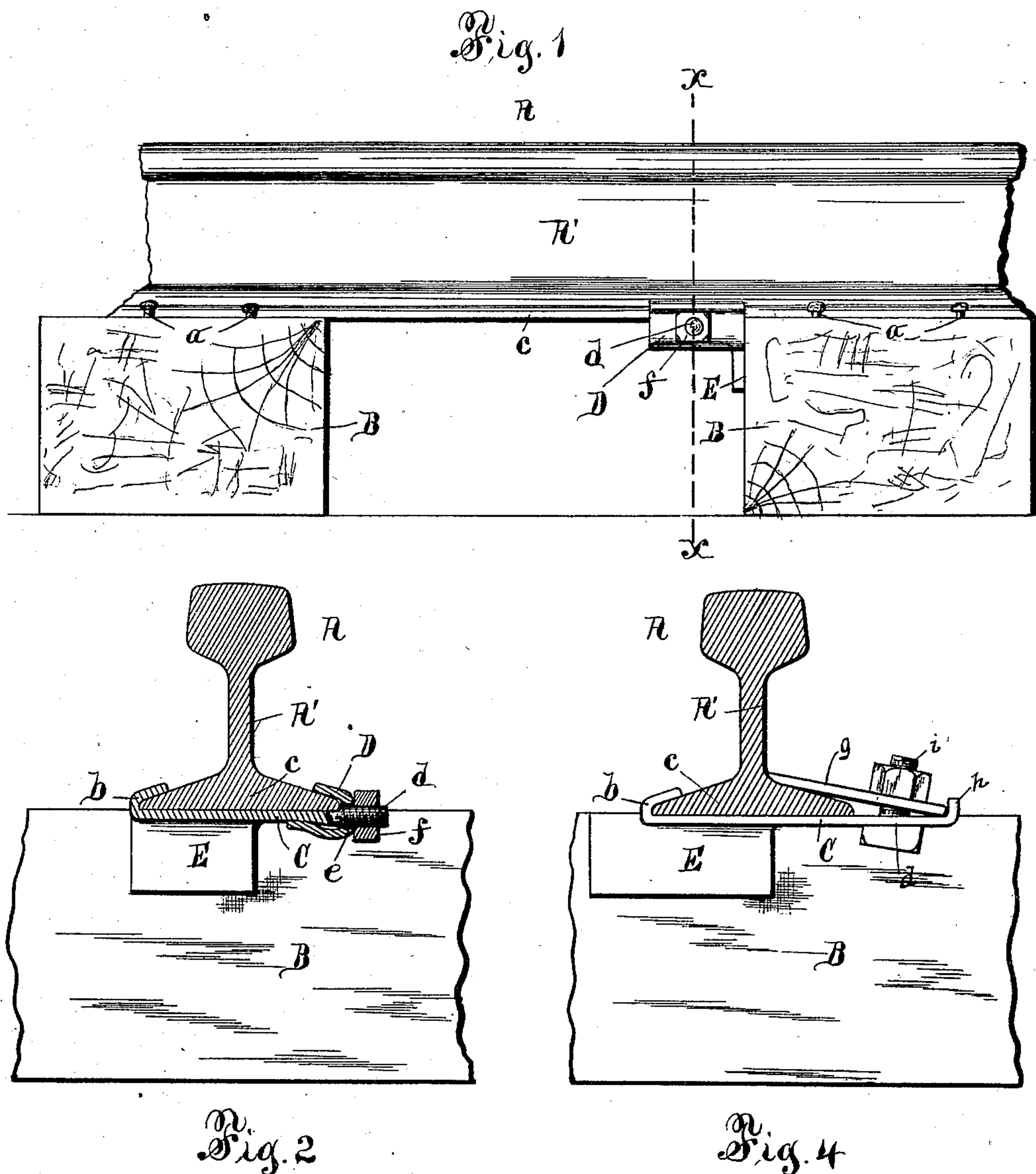
H. H. SPONENBURG.

RAILWAY RAIL STAY.

(Application filed Oct. 20, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

H. E. Smith.

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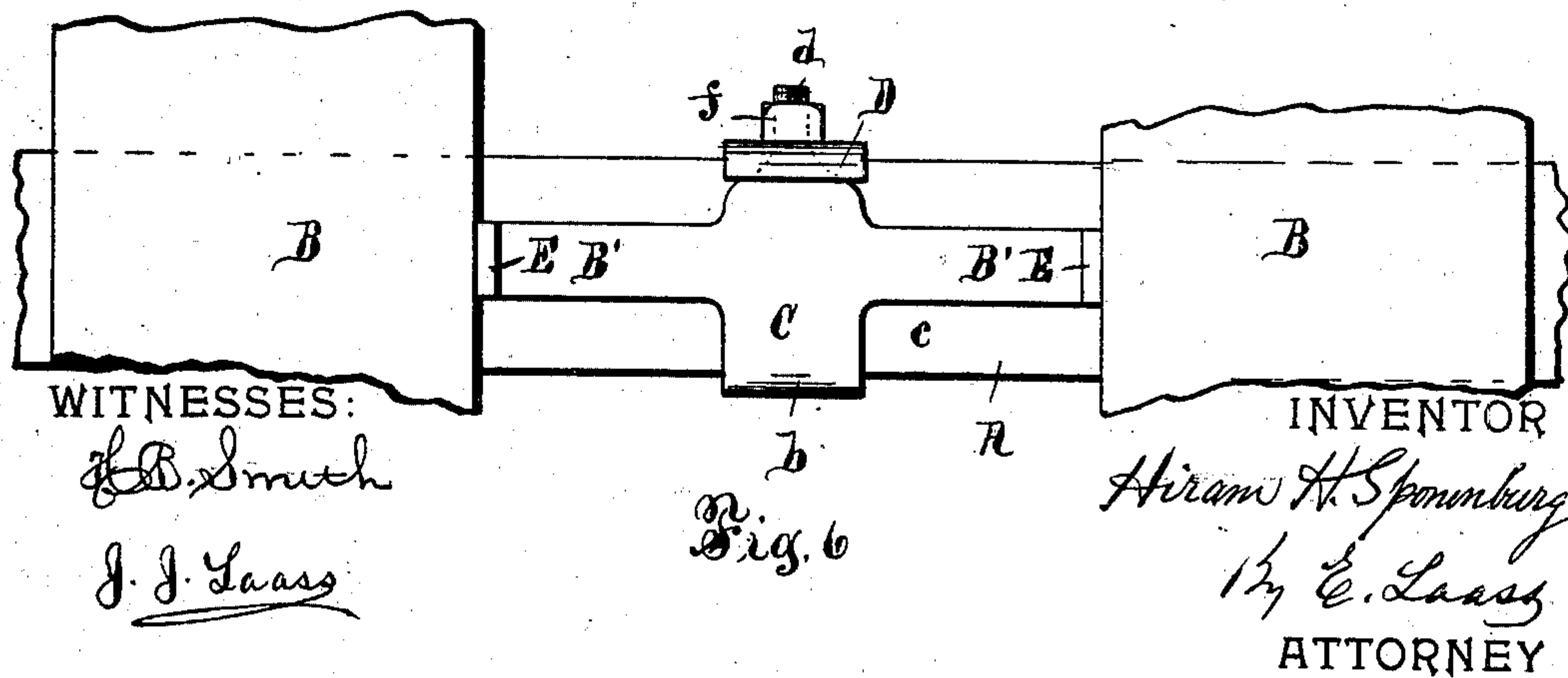
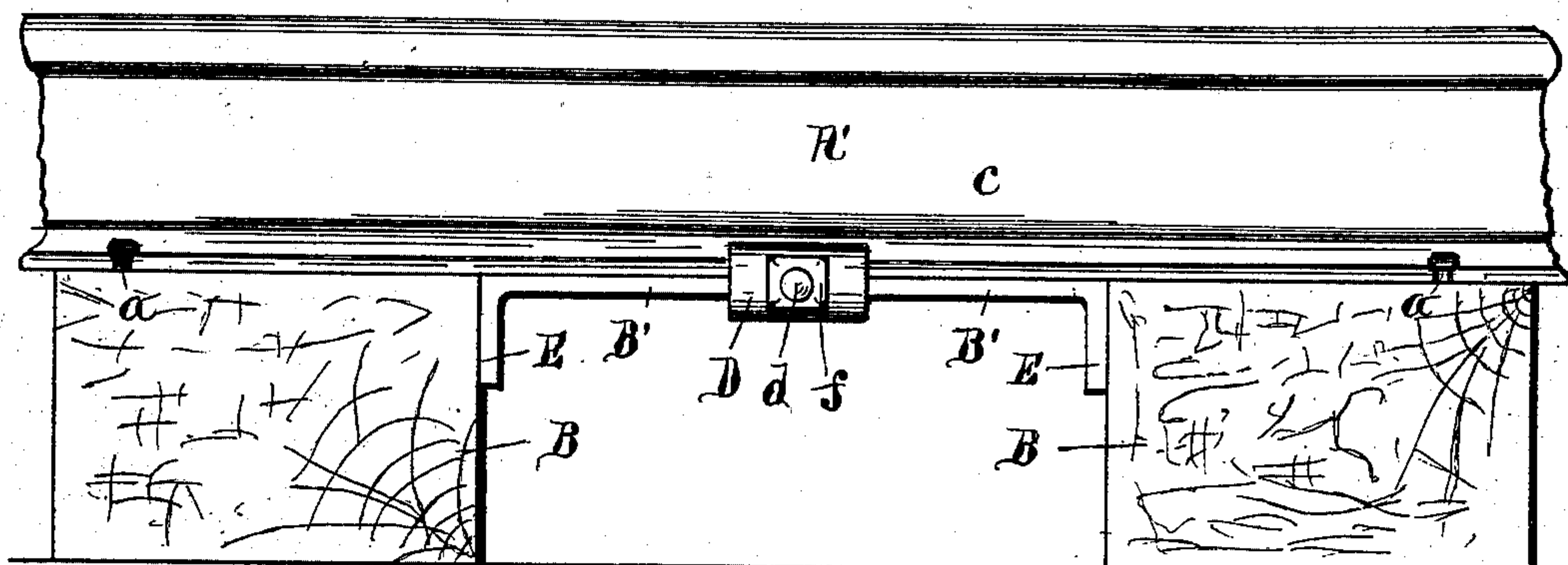
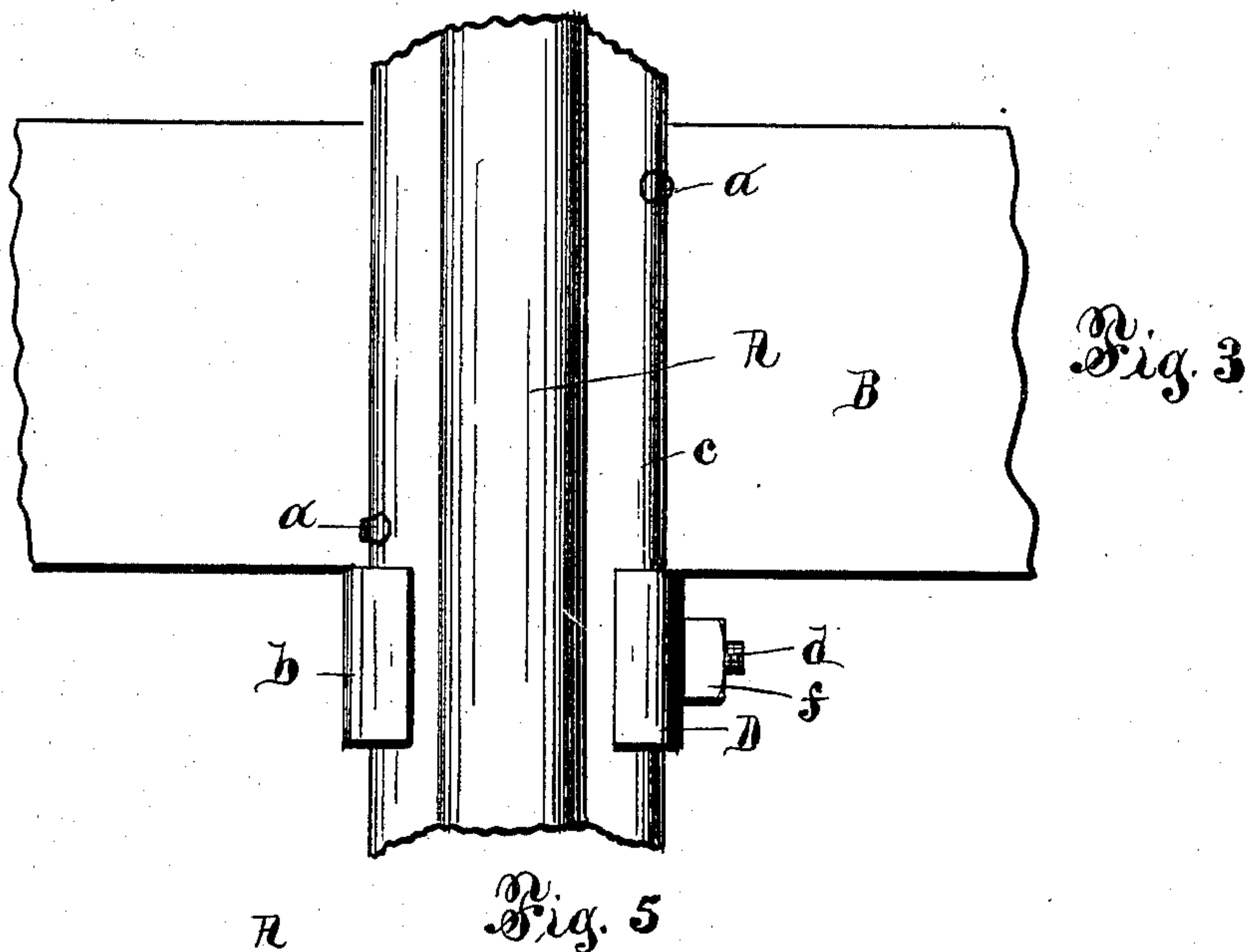
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WITNESSES:

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UNITED STATES PATENT OFFICE.

HIRAM H. SPONENBURG, OF WADSWORTH, ILLINOIS, ASSIGNOR OF ONE-HALF TO EDWARD LAAS, OF ELGIN, ILLINOIS.

RAILWAY-RAIL STAY.

SPECIFICATION forming part of Letters Patent No. 668,423, dated February 19, 1901.

Application filed October 20, 1900. Serial No. 33,672. (No model.)

To all whom it may concern:

Be it known that I, HIRAM H. SPONENBURG, a citizen of the United States, and a resident of Wadsworth, in the county of Lake, in the State of Illinois, have invented new and useful Improvements in Railway-Rail Stays, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to prevent the rails of railways from creeping longitudinally, which movement is specially to be guarded against on double-track railways on which all trains on each track run in one direction, and consequently induce such creeping or longitudinal movement of the rails.

To that end the invention consists in the novel construction and combination of parts, as hereinafter fully described.

In the accompanying drawings, Figure 1 is a side view of a portion of a railway-track with my invention applied thereto. Fig. 2 is an enlarged transverse section on line X X in Fig. 1. Fig. 3 is a plan view of Fig. 2. Fig. 4 is an enlarged transverse section of a rail and a portion of a cross-tie, illustrating a modification of the rail-clamp. Fig. 5 shows a further modification of the invention, and Fig. 6 is an inverted plan view of the construction shown in Fig. 5.

Referring to Figs. 1, 2, and 3 of the drawings, A denotes the rail of the well-known construction, which is seated upon the wooden cross-tie B in the usual manner and secured thereto by means of the usual spikes *a a*. Although the spikes are driven tightly into the cross-tie, still at the same time it has been found that on tracks on which the trains travel only in one direction the rails creep longitudinally, which creeping causes the track to be thrown out of alinement and the cross-ties to be twisted and moved out of place at the rail-joints and also causes the switches to be crowded out of position. This creeping of the rails is effectually prevented by my rail-stay, which comprises a strap C, extending across the bottom of the rail A at one side of the rail-seat and formed at one end with a jaw *b*, by which it grips the inner edge of the base *c* of the rail, and the opposite or

outer end of the strap is formed with an extension *d*, which is screw-threaded.

D represents a jaw which is formed separate from the strap and provided with an opening *e*, whereby it is supported on the extension *d*. Said jaw is made to grip the outer edge of the rail-base by means of a nut *f*, applied to said screw-threaded extension. Thus the strap is firmly clamped to the rail. The strap is provided with a downwardly-extending flange E, consisting of a plate preferably formed integral with the strap and abutting against the side of the cross-tie B.

Referring to Fig. 4 of the drawings, illustrating a modification of the invention, the jaw comprises a plate *g*, which bears on the upper side of the rail-base and has its outer end engaging a shoulder *h*, formed at the corresponding end of the extension *d*, and its inner end bearing against the web A' of the rail A, and through said plate *g* and extension passes a bolt *i*, by means of which the plate is firmly supported on the extension.

Although the trains on a double-track railway are supposed to travel entirely in one direction on each track, still at the same time it is well known that there is more or less travel in both directions on those portions of the track which are provided with switches. Thus the rails have a tendency to creep in either direction at said portions. Therefore to prevent this I provide the construction shown in Fig. 5, which is applied to the track adjacent to said switches. Referring to the latter figure, the strap C is secured to the rail A in either manner hereinbefore described, but is disposed between the rail-seats. In this case the strap is formed with two bars B' B', extending in opposite directions and at right angles to the strap and disposed longitudinally under the rail and contiguous thereto. The ends of the bars B' B' are bent downwardly to form the flanges E E, which abut against the adjacent sides of the ties B B.

What I claim as my invention is—

1. The combination with the cross-tie and the rail supported thereon, of a rail-stay consisting of a strap extending across the bottom of the rail at one side of the rail-seat and formed in one piece with a rail-gripping jaw

on one end, and with a horizontal extension on the opposite end, a flange projecting downwardly from the inner edge of the strap and abutting against the side of the tie directly
5 under the rail, and a separately-formed jaw supported on said extension of the strap independently of the cross-tie and gripping the rail-flange as set forth.

2. The combination with the cross-ties and
10 the rail supported thereon, of a rail-stay consisting of a strap extending across the bottom of the rail at one side of the rail-seat and formed in one piece with a rail-gripping jaw on one end, and with a horizontal extension

on the opposite end, a pair of bars extending 15 in opposite directions from the strap and at right angles thereto and disposed contiguous to the under side of the rail, and formed at their ends with downwardly-extending flanges abutting against the adjacent sides of the 20 ties, and a separately-formed jaw supported on the aforesaid extension of the strap independently of the cross-ties and gripping the rail-flange as set forth.

HIRAM H. SPONENBURG. [L. S.]

Witnesses:

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