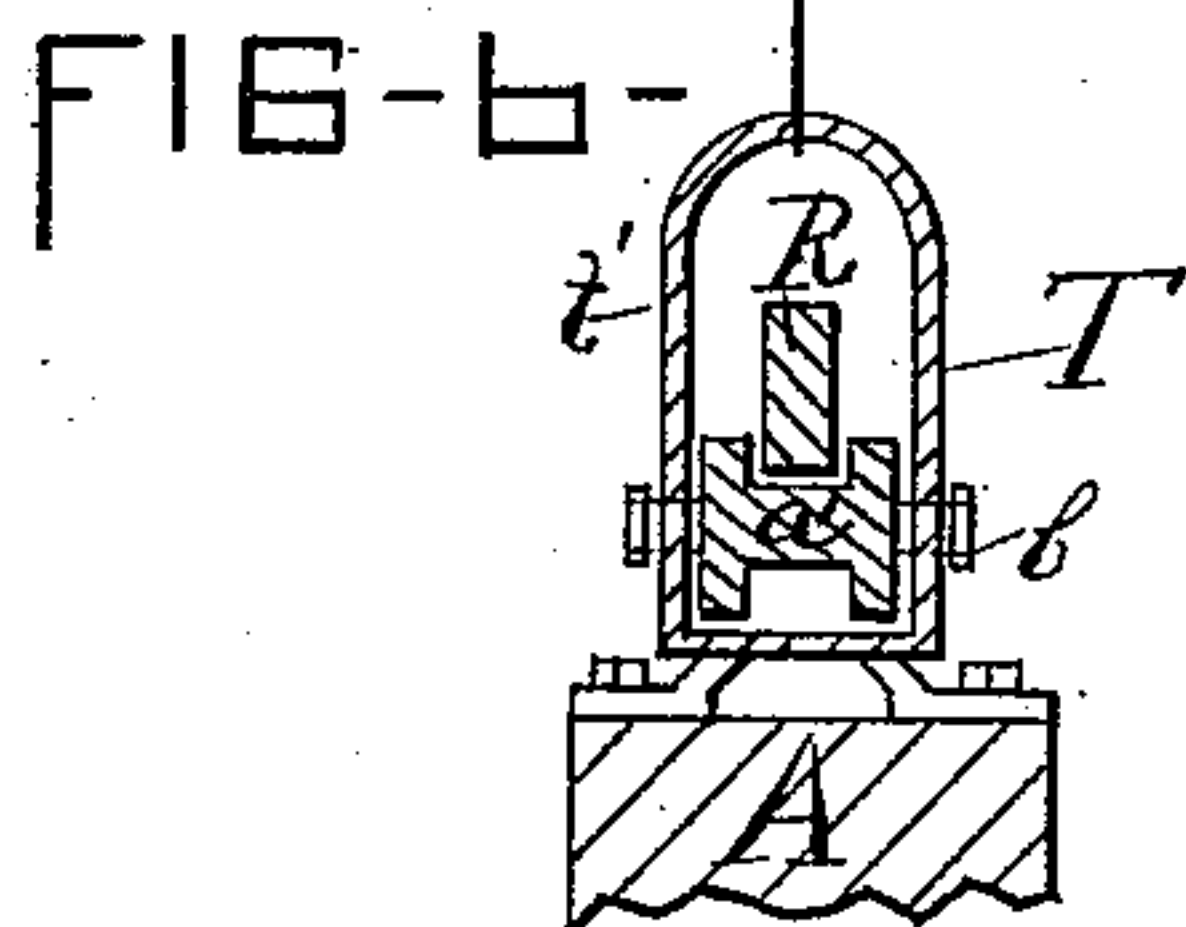
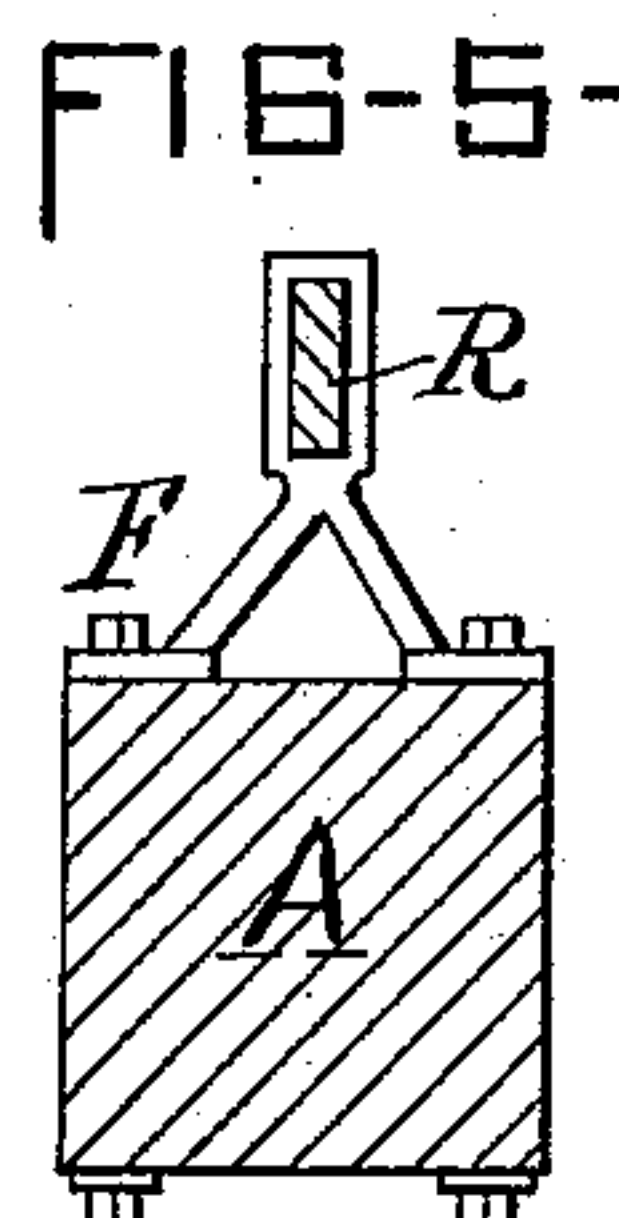
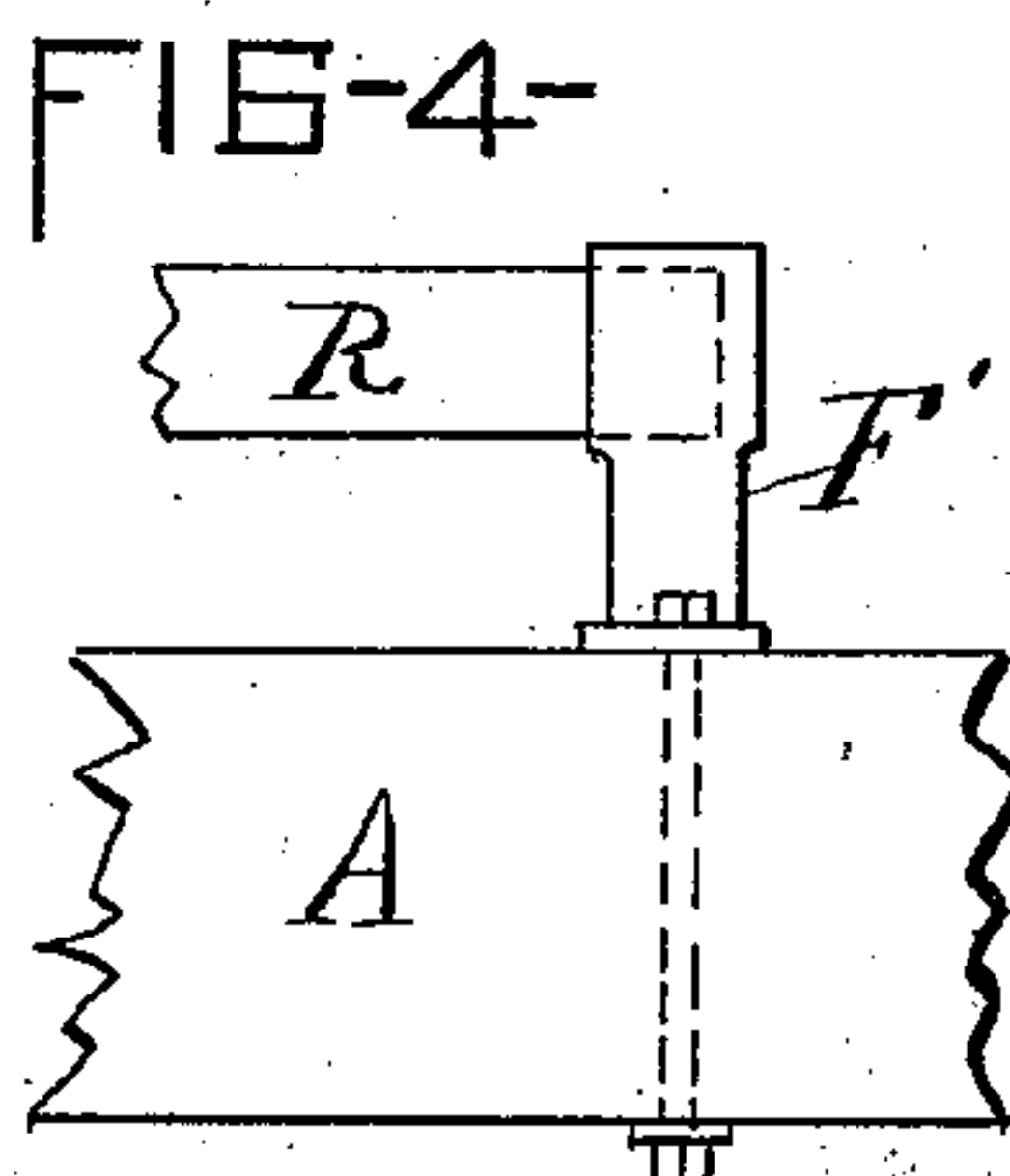
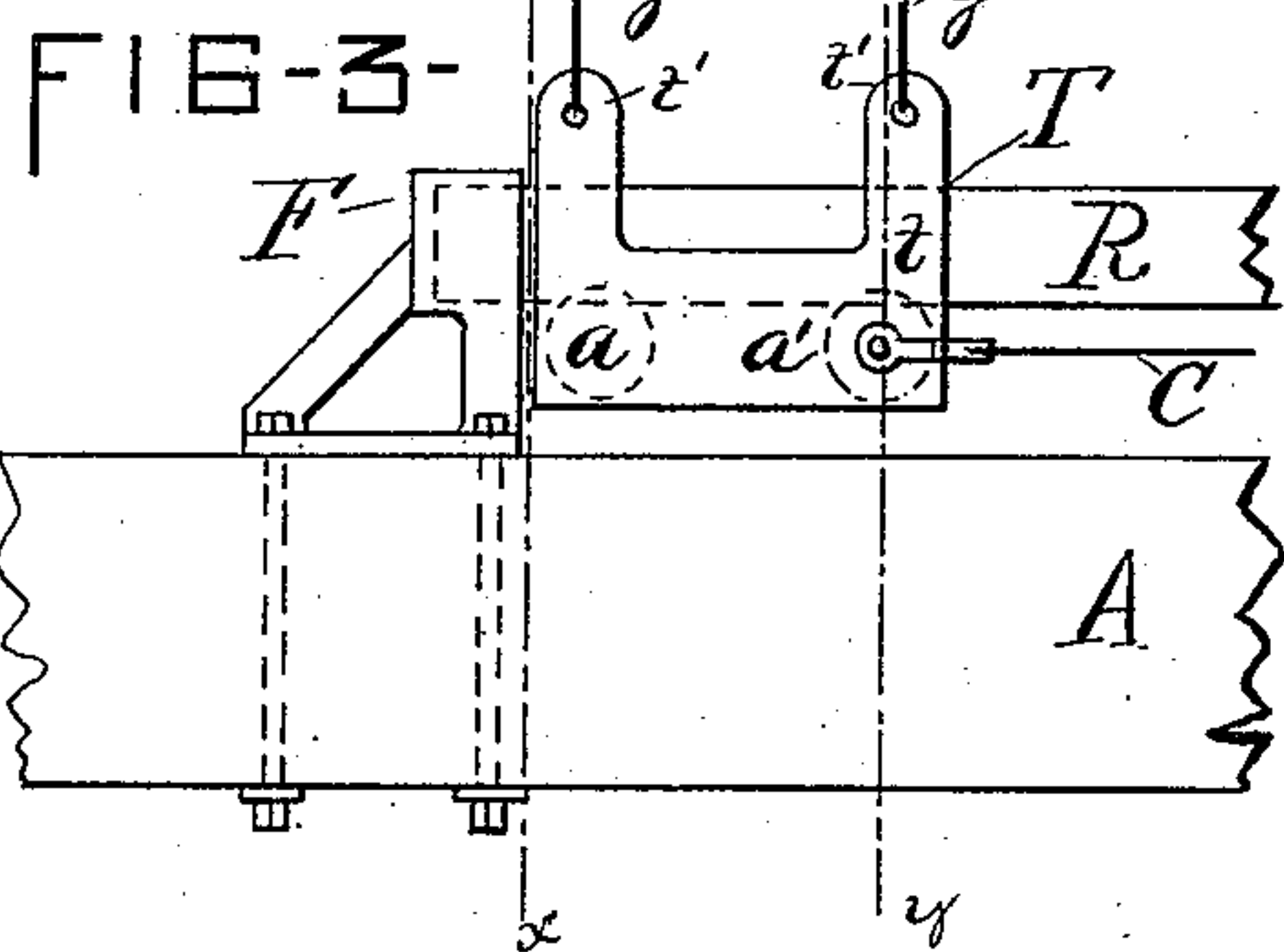
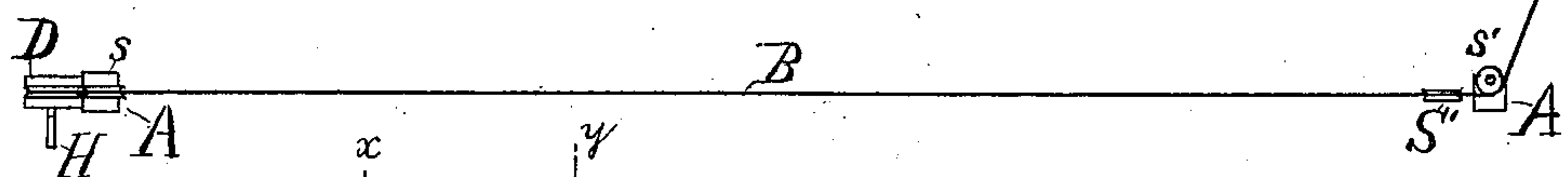
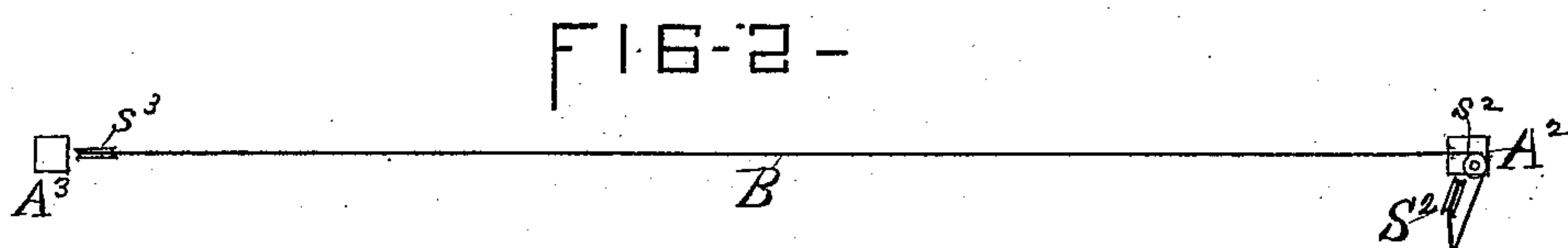
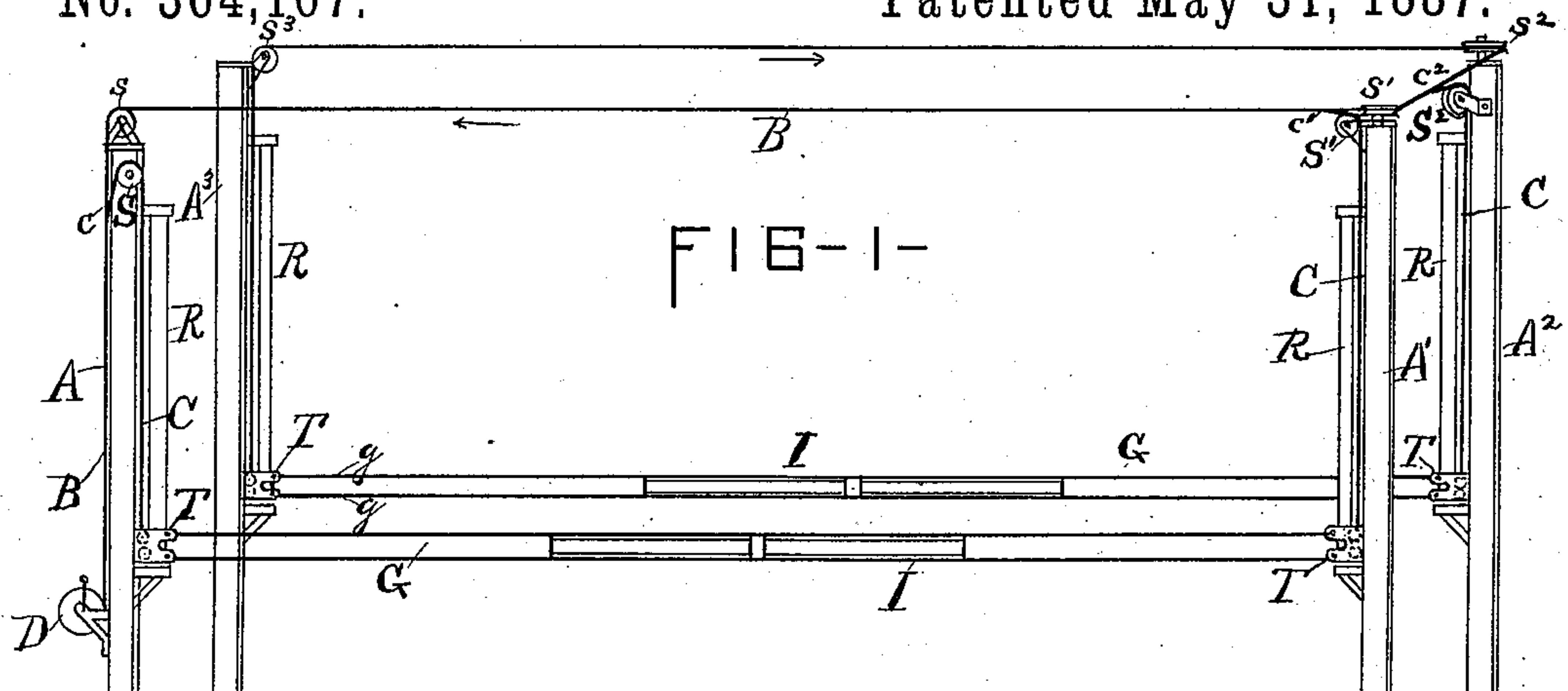


(No Model.)

T. H. FENNELL.
RAILWAY GATE.

No. 364,167.

Patented May 31, 1887.



WITNESSES:

A. D. Allen
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UNITED STATES PATENT OFFICE.

TIMOTHY H. FENNELL, OF APULIA, ASSIGNOR OF ONE-HALF TO ADOLPH H. SCHWARZ, OF SYRACUSE, NEW YORK.

RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 364,167, dated May 31, 1887.

Application filed October 18, 1886. Serial No. 216,514. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY H. FENNELL, of Apulia, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Railway-Gates, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to the class of railway-gates described and illustrated in my application filed August 11, 1886, Serial No. 210,616; and the improvement consists in the detail construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims.

In specifying my invention reference is had to the accompanying drawings, in which like letters indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a railway-gate containing my invention. Fig. 2 is a top plan showing the relative arrangement of the hoist-drum and sheaves on top of the posts and the lifting-cable rove from the drum through the said sheaves. Fig. 3 is an enlarged detached detail of the post, the rail and its securing-bracket, and the traveler in position on the guide-rail. Fig. 4 shows the method of securing the upper end of the guide-rail to the post. Fig. 5 is a transverse section on line xx , Fig. 3, through the post and rail, showing the bracket-support for the lower end of the rail; and Fig. 6 is a sectional view taken on line yy , Fig. 3, showing the construction of the traveler.

$A A' A^2 A^3$ are the posts of my railway-gate, arranged relatively to each other upon opposite and adjacent sides of the crossing, as shown in Figs. 1 and 2.

Upon the exterior of the posts I secure the guide-rails R . The said rails may consist either of rods, T -rails, or bar-rails, and the said rails are secured to the posts, as best shown at Figs. 3 and 4, the lower end of the rail being secured to a bracket, F , Fig. 3, and bolted to the post, the upper end being secured in a bracket, F' , Fig. 4.

T is the traveler, consisting of a frame or shell, t , which may be constructed in two parts, connected by screws or bolted together. At the upper and lower ends of the traveler are bearings for the grooved roller-sheaves $a a'$, and the shell or frame of the traveler is pro-

vided with extensions $t' t'$, with eyes, into which the cross-gate is secured. The grooved sheaves $a a'$ turn on the guide-rail R , as shown at Figs. 1 and 3 of the drawings. The extensions $t' t'$ embrace the said rail and prevent the roller-sheaves $a a'$ from dropping off.

The hoisting-cable B is secured to the hoist-drum D , Fig. 1, and is rove over the sheaves on post A , across and around guide-sheaves on post A' ; thence around sheave s^2 on third post, A^2 ; thence across and around sheave s^3 on post A^3 ; thence down and secured to the traveler T of the last post, A^3 . It will be observed that the hoisting-cable B is rove thus continuously from the hoist-drum D on the post A from post to post over the guiding-sheaves, and finally secured to the traveler T , as aforesaid. Now, in order to connect the opposite end of the gate to the hoisting-cable B , and also the gate on the posts A and A' to the said hoisting-cable, I provide connecting-cables $C C C$, Fig. 1, and secure the same at one end to the travelers $T T T$ of the posts $A A' A^2$, and reeve the said cables $C C C$ over the sheaves $S S' S^2$, Fig. 1, and secure the ends thereof at $c c' c^2$ to the running hoisting-cable B , as best shown in Fig. 1.

It will be observed that the hoisting-cable, when it is desired to lift the gates, runs in the direction of the arrows, Fig. 1, and that consequently the gates rise evenly when the hoisting-drum D is turned in the direction to pull down on the cable B .

$G G$ are the gates, and, as illustrated in Fig. 1, they consist of two wire cables, $g g$, secured to the travelers $T T$ in any desirable manner; or they may be detachably secured to the said travelers in the manner shown and claimed in my previous application hereinbefore referred to.

The gates $G G$, if desired, may consist of lattice-work made of wire or other material, and provided with danger-signals $I I$, as desired.

It will be observed that the hoisting-cable B simply operates to raise the gate, and it is therefore necessary to construct the travelers $T T$ of sufficient weight to draw down the gate by gravity when it is desired to lower the gates, and pressure is for this purpose released from the hoisting-drum.

The operation of the gate will be readily understood from the foregoing description and

upon reference to the drawings. The employment of the guide-rail R, in connection with the travelers T T and the hoisting-cable B, gives a very simple and easily-operating gate and forms a very effective device for the purpose intended.

I am aware that rails have been used on the exterior of the standards of railway-gates to guide the travelers, and that travelers embracing the standards have been employed in connection with hoisting-cables rove continuously from post to post; also, that two-part barriers or gates have heretofore been patented; but my invention differs from these prior devices in that I employ guide-rails secured to the standards upon which the traveler-sheaves run, the travelers being made of sufficient weight to operate the gate in its downward movement, and connect the travelers to a hoisting-cable rove continuously from post to post over and through sheaves secured on the post by means of auxiliary cables connected at one end to the travelers and at the other to the hoisting-cable, the said auxiliary cables passing over sheaves on the post, as herein explained, the whole forming a compact, simple, and more effective device for the desired purpose than those of the prior art, for the reason

that greater ease in operating and strength and durability are thereby secured. 30

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

In a railway-gate, the combination of the travelers T, constructed of sufficient weight to operate the gate in its downward movement, four posts provided with rails R, the cable B, rove continuously over the sheaves $s s' s^2 s^3$, secured on the posts, connected at one end to the drum D and at the other to the traveler T on the post A³, the cables C, connected to the other travelers and to the hoisting-cable B, the said cables C passing over the sheaves S S' S² on the posts, and the two-part barriers G, connected to the travelers, substantially as and for the purpose set forth. 45

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 16th day of October, 1886. 50

TIMOTHY H. FENNELL.

Witnesses:

FREDERICK H. GIBBS,
E. C. CANNON.