

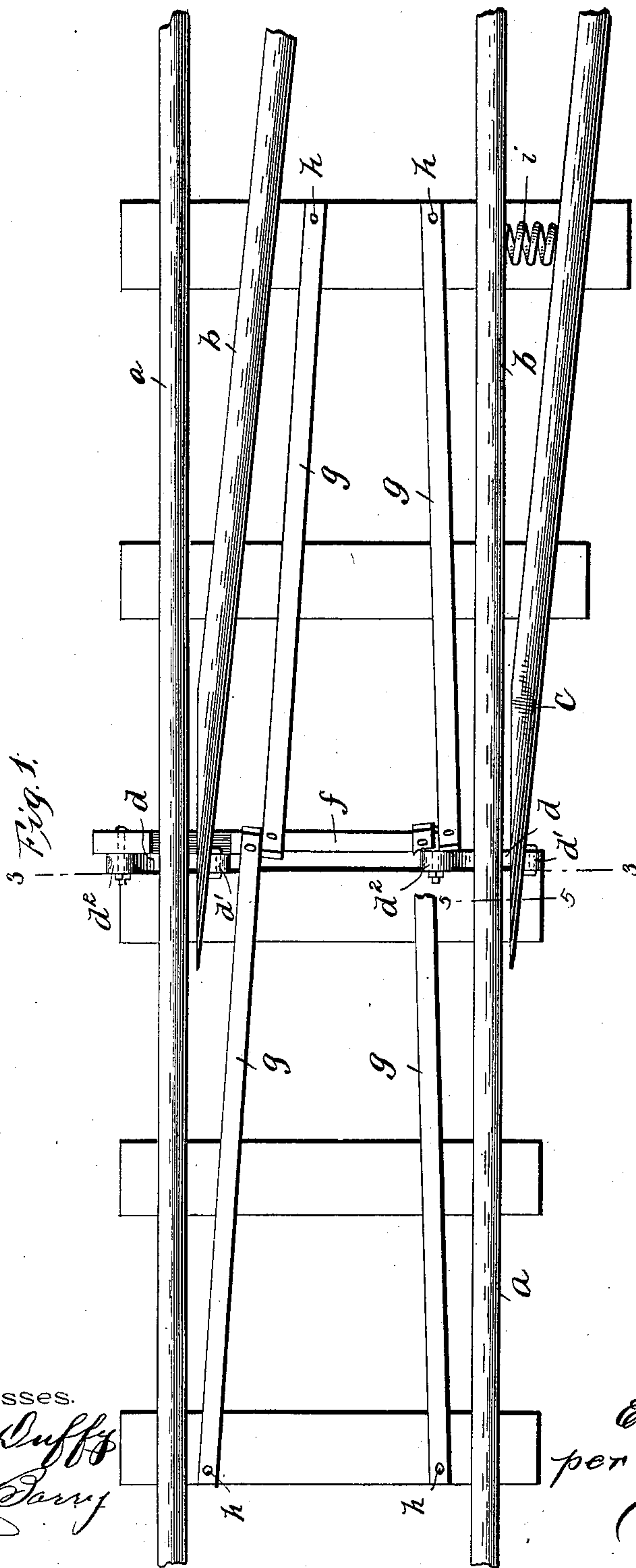
(No Model.)

5 Sheets—Sheet 1.

E. J. JENKINS.
RAILWAY SWITCH.

No. 602,014.

Patented Apr. 5, 1898.



Witnesses.

E. C. Duff
J. L. Barry

Inventor.
Edwin J. Jenkins
per *O. E. Duff*

Attorney.

(No Model.)

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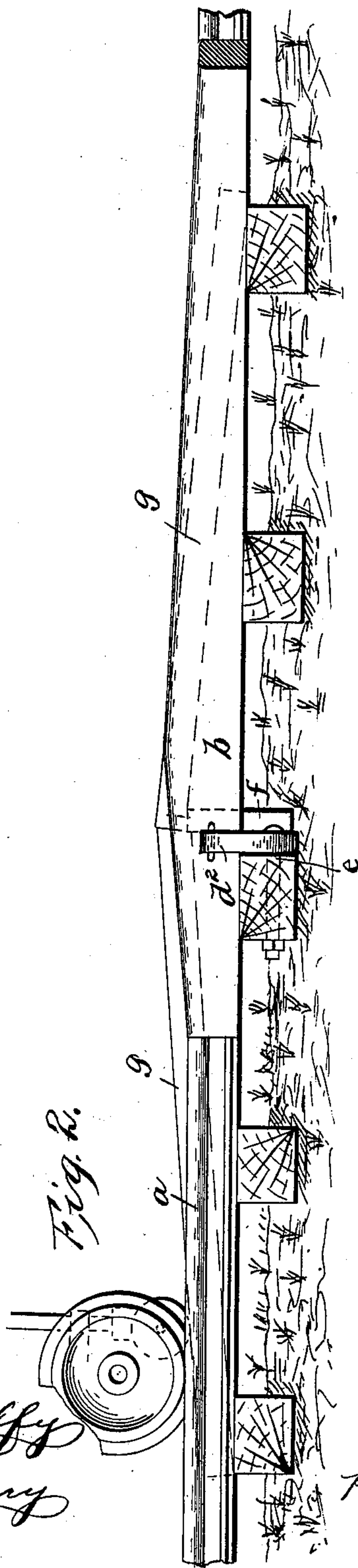
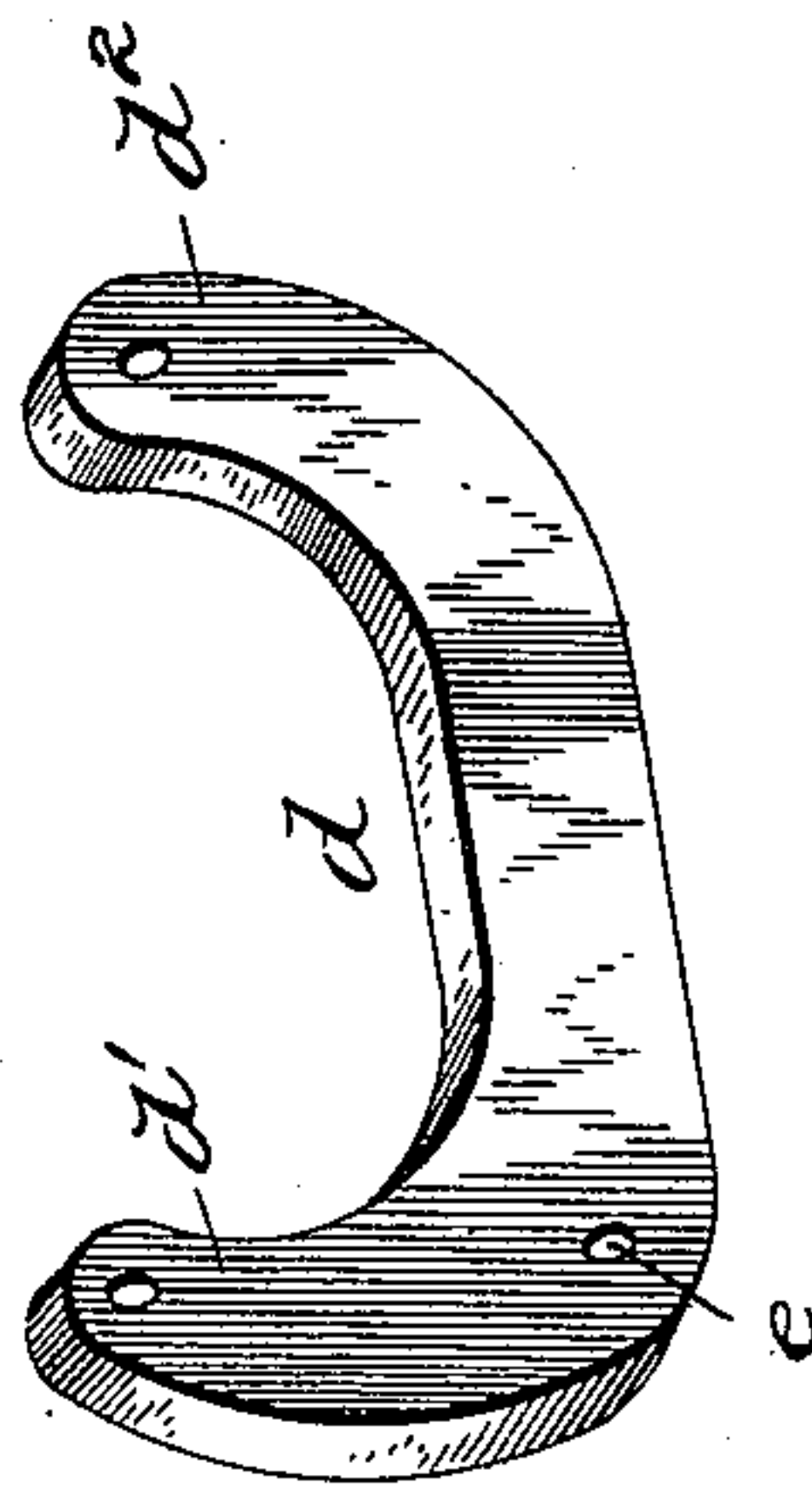


Fig. 11.



Witnesses.

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Fig. 3.

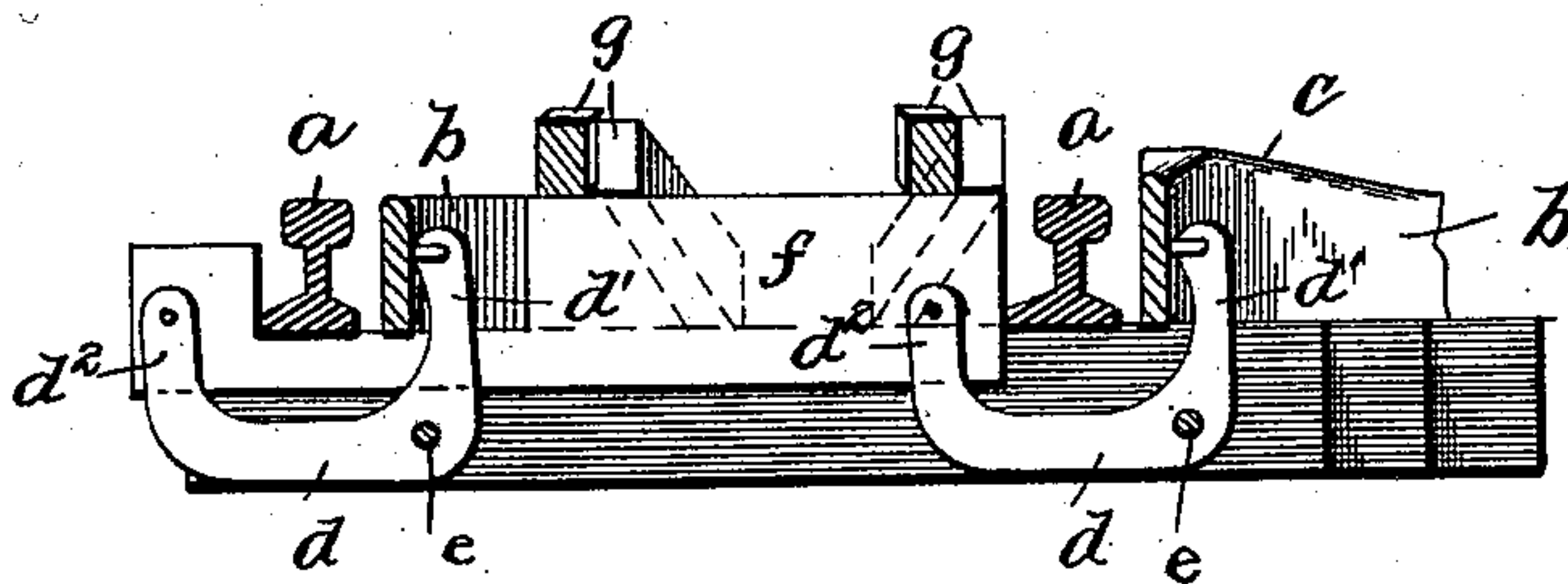


Fig. 4.

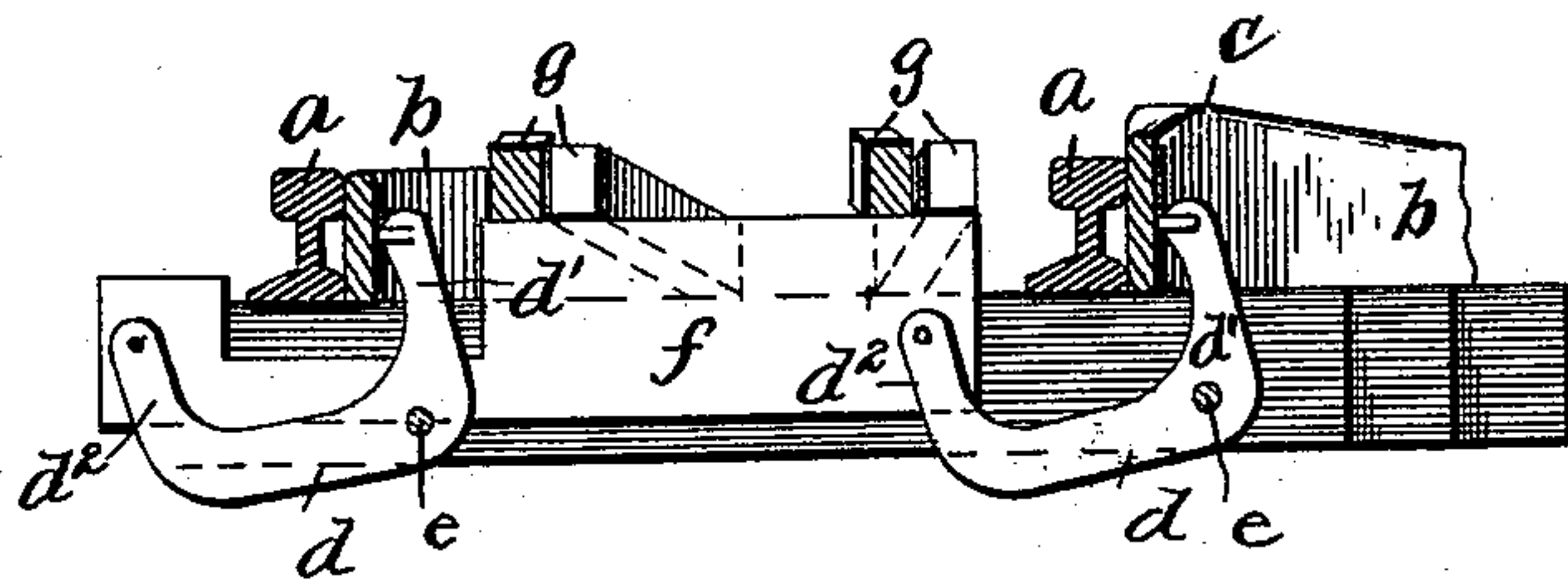
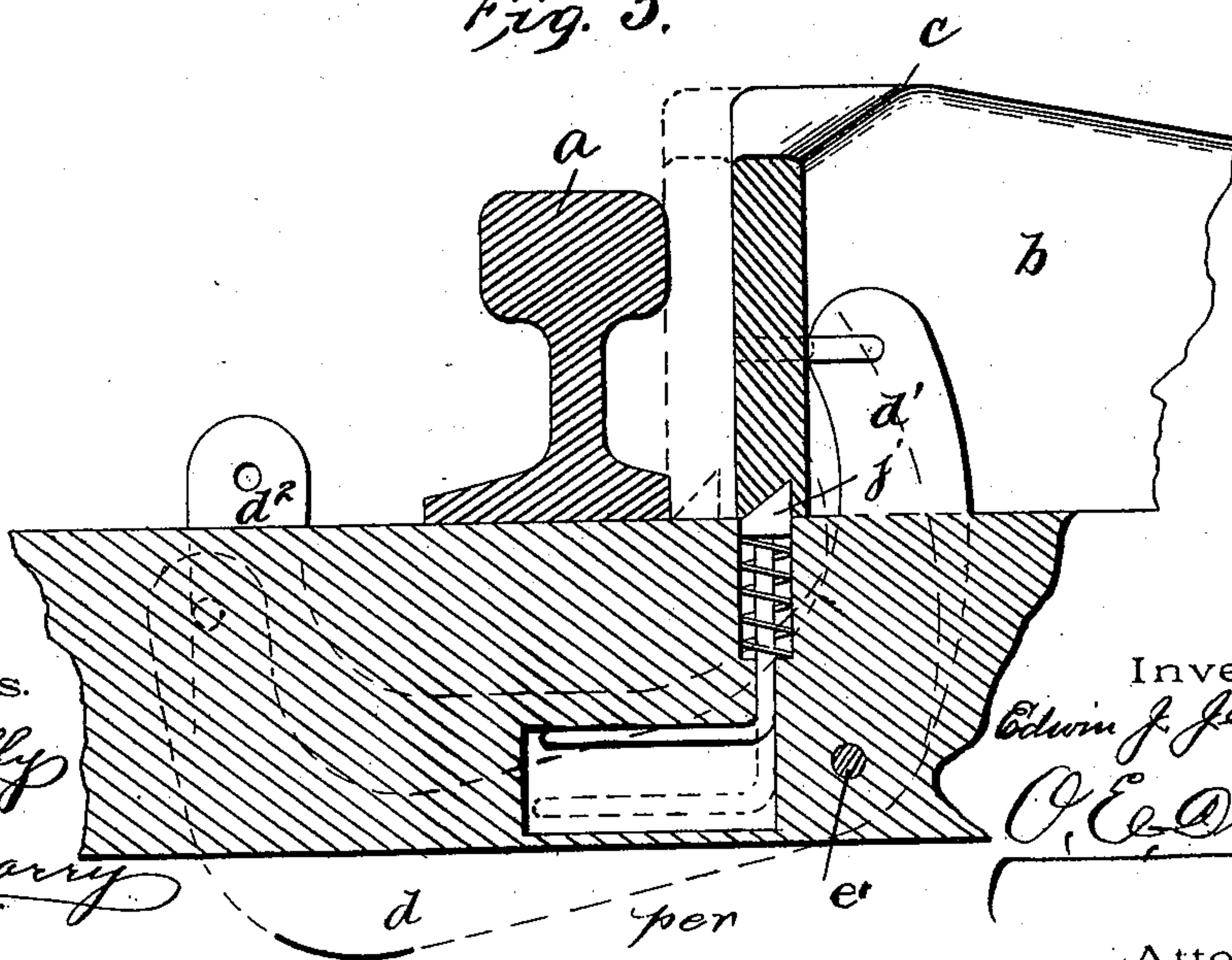


Fig. 5.



Witnesses.

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Fig. 6.

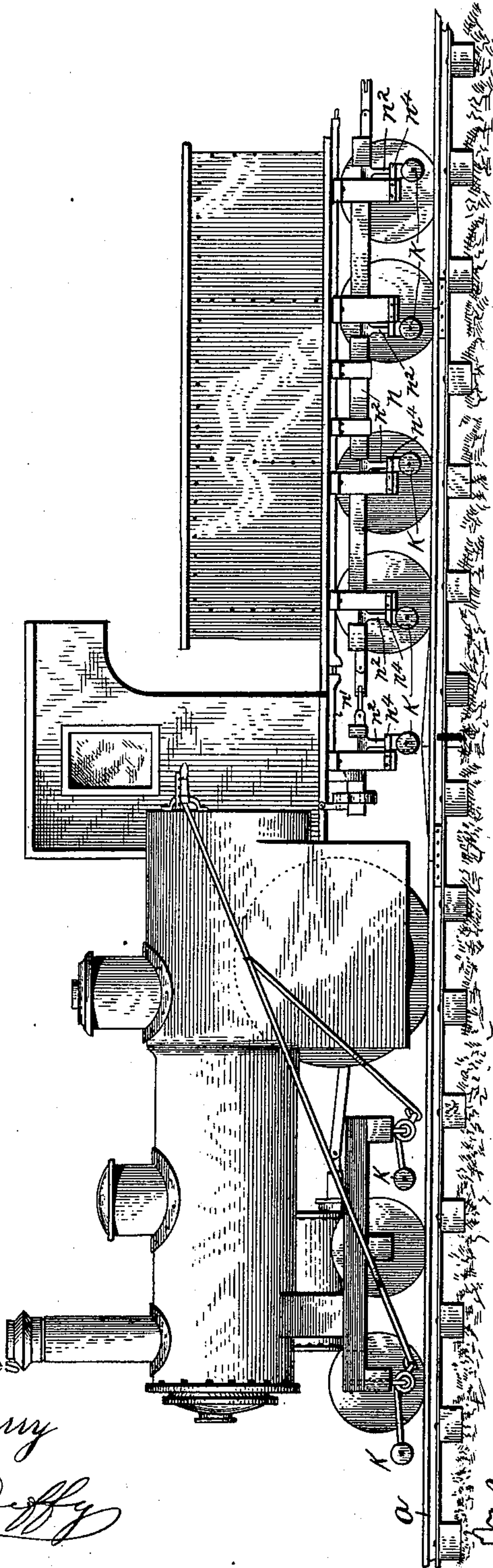
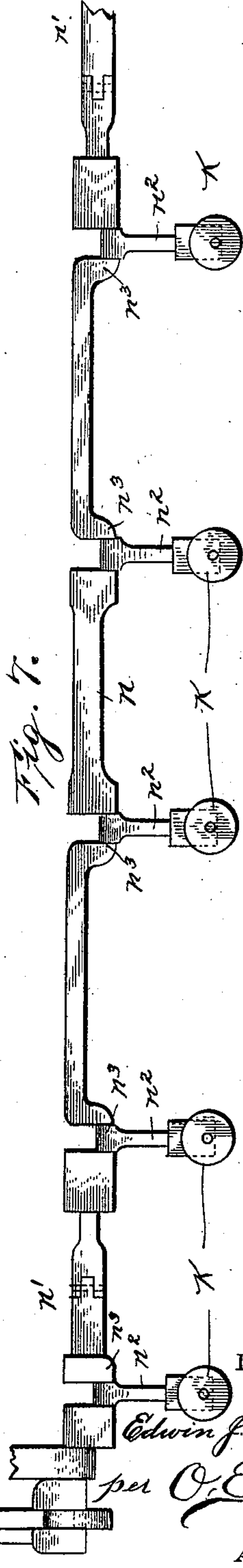


Fig. 7.



Witnesses

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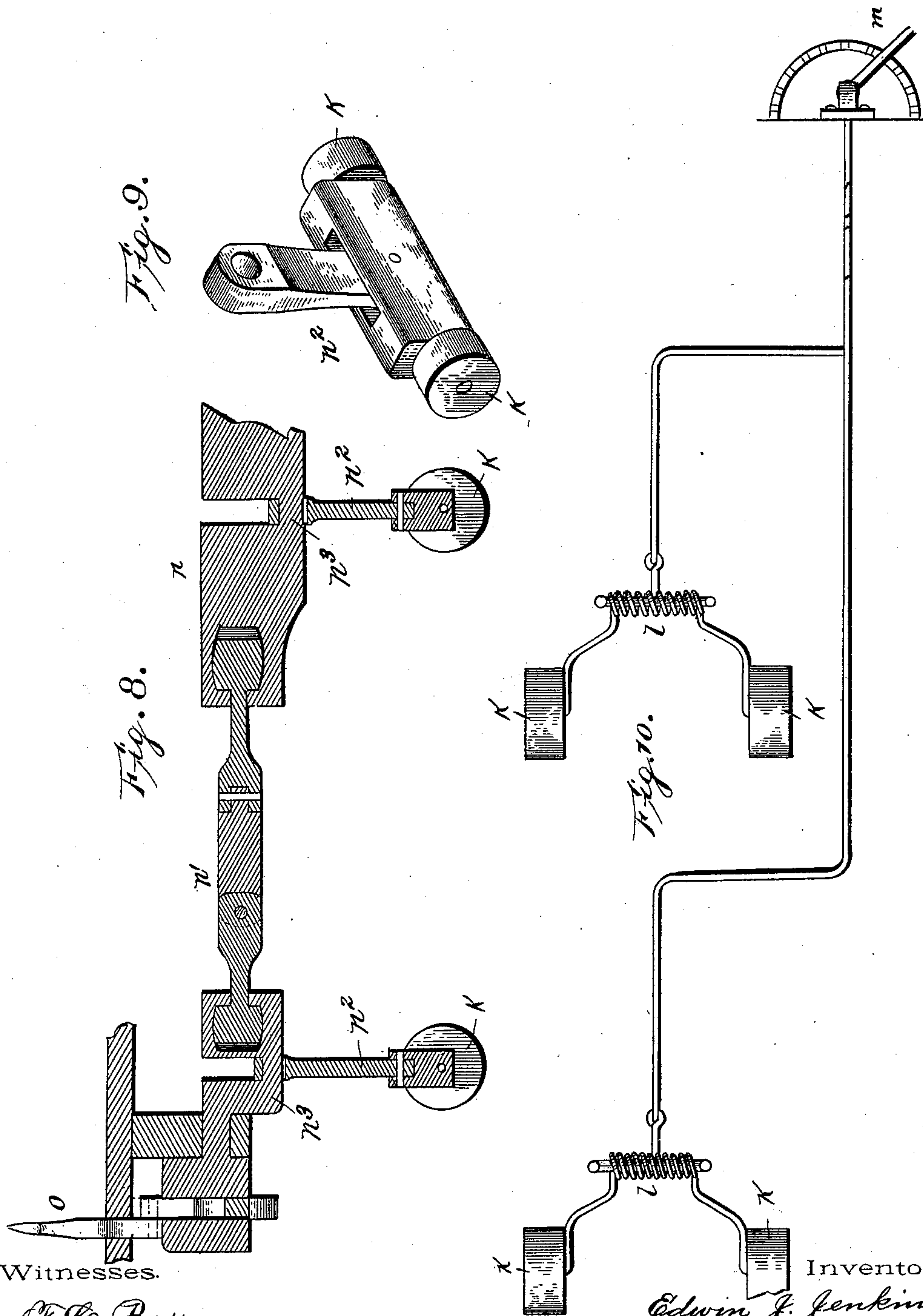
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UNITED STATES PATENT OFFICE.

EDWIN J. JENKINS, OF ELLOREE, SOUTH CAROLINA, ASSIGNOR OF PART
TO J. M. OLIVER AND HENRY H. BRUNSON, OF ORANGEBURG, SOUTH
CAROLINA.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 602,014, dated April 5, 1898.

Application filed July 27, 1897. Serial No. 646,089. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. JENKINS, of Elloree, in the county of Orangeburg and State of South Carolina, have invented certain
5 new and useful Improvements in Railway-Switches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain new and
15 useful improvements in railway-switches, and has for its object simplicity, durability, and cheapness of construction, composed of a minimum number of parts, and quick and accurate of operation.

20 A further object of the invention is to provide means for operating the switch from the engineer's cab or other convenient place on the engine or coaches.

25 A further object of the invention is to provide a switch that may be placed anywhere along the main line of a railroad without cutting or otherwise disturbing the rails.

30 A further object of the invention is to provide a switch automatically normally held closed and means for opening same before each truck or set of wheels passes when it is desired to switch or run the train on a siding.

35 A further object is to provide switch-operating mechanism for each coach operated by the engineer from his cab.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

40 In the drawings, Figure 1 is a top plan view of my improved switch. Fig. 2 is a side elevation thereof, showing a portion of the operating mechanism about to open the switch. Fig. 3 is a cross-section on the line 3 3, Fig. 1, the switch being closed. Fig. 4 is a similar
45 view, the switch shown open. Fig. 5 is an enlarged section on the line 5 5 of Fig. 1, showing a spring-catch adapted to automatically release the switch-rail and close or allow the
50 same to close. Fig. 6 is a side elevation of a portion of a train provided with my improved

switch-operating mechanism. Fig. 7 is a detail detached view of the switch-operating mechanism. Fig. 8 is a partial longitudinal section of a portion of the switch-operating
55 mechanism and a coupling therefor. Fig. 9 is a detail perspective of one of the vertically-adjustable depending hangers and its rollers. Fig. 10 is a top plan view of the switch-operating mechanism adapted to be used on the
60 engine, and Fig. 11 is a detail perspective view of one of the rockers.

Referring to the drawings by letter, *a* are the main rails of a line, and *b* the switch-rails, the outer one having the gradually-in-
65 clined portion *c*, adapted to raise the tread of a car-wheel high enough to allow the flange to pass over the main rail without cutting said main rail and with no vibration or jolt to the coach.

70 *d* are U-shaped rockers pivoted to a tie or the like at *e*, having one of their vertical arms *d'* loosely connected to a switch-rail and the other vertical arm *d''* movably secured to the bar *f*.

75 *g* are two or more sets of rods or bars running longitudinally with and between the rails *a* of the main line and are loosely secured to a tie at *h* a distance each side of and movably attached to the bar *f*, which is higher
80 than the points *h* and the rails *a* and *b*, thus inclining the rods or bars *g* to the bar *f* and above the level of the rails of the main track and switch.

85 *i* is a suitable spring to assist the switch-rails to their normal closed position.

90 *j* is a spring-catch adapted to hold the switch-rails closed and is automatically opened by one of the rockers *d*, as shown in Fig. 5.

Fig. 10 shows the switch-operating mechanism used on the engine, in which *k* are the depending rollers, adapted to bear on the inclined rods or bars *g* when the switch is to
95 be opened, and are normally held out of engagement therewith by the tension of the springs *l* and thrown into engagement by any suitable lever *m*. Each coach is provided with a rock-shaft *n*, having a coupling *n'* under the buffers to connect with following cars.
100 The rock-shaft *n* extends the full length of each coach and is rotatably secured thereun-

der, carrying a series of depending hangers n^2 , journaled on the cranks n^3 and held and allowed to move vertically by the sleeves n^4 . These hangers n^2 are located before and after each set of trucks and are vertically movable by means of the rock-shaft n , and operated by the lever o in the engineer's cab.

In operation, the switch being held closed by the spring-catch j , the inclined rods or bars g being at their highest elevation and it is desired to run a train on the switch or siding, the engineer presses and locks his lever operating the engine-hangers, which are thrown down so they will engage the inclined rods g , thus opening the switch by reason of the weight on the said rods pressing down the bar f , which in turn rocks the rockers d , withdrawing the spring-catch j , releasing the switch-rails, which are then forced against the main rails by the said rockers d , the wheels of the cars passing up the inclined portion of the switch-rail until the flange of the wheel will clear the main rail and pass over on the said switch-rail. The switch being spring-actuated and normally closed, it will of course close as soon as the weight or pressure of the hangers is removed from the bar f . I therefore provide a vertically-movable hanger carrying rollers in front and in the rear of each set of wheels, operated by the lever in the engineer's cab and the rock-shaft under each coach. Thus each coach sets the switch for itself, thereby saving time and labor and assuring safety.

It is evident that various slight changes might be made in the forms, construction, and arrangements of the parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction herein set forth, but consider myself entitled to all such changes that fall within the spirit of the invention.

Having thus fully described my invention, what I claim, and wish to secure by Letters Patent of the United States, is—

1. In an automatic switch the combination of the rails, the switch-rails, a spring between said main and switch rails, rockers loosely attached to said switch-rails, a connecting-bar for said rockers, inclined bars resting on said connecting-bar, and hangers carried by the coaches adapted to impart the operating-pressure to the said inclined bars, substantially as described.

2. An automatic switch comprising the main and switch rails, rockers attached to said switch-rails, a connecting-rod for said rockers, inclined rods or bars having their highest points resting on and loosely secured to said connecting-bar, which are adapted to receive the operating-pressure from the train, hangers carried by the train and operated therefrom, substantially as described.

3. An automatic switch comprising the main and switch rails, a spring between said main and switch rails, rockers loosely attached to said switch-rails, a rod connecting said rockers, the inclined rods resting on said connecting-rod and operated from the train and a spring-actuated catch to hold the switch closed and operated by the rockers, substantially as described.

4. An automatic switch composed of the main rails, the switch-rails, a raised inclined portion on one of said switch-rails, rockers loosely attached to said switch-rails, a connecting-bar for said rockers, inclined bars arranged longitudinally between the main rails their highest point resting on said connecting-bar and adapted to receive operating-pressure from the train and a spring-actuated catch operated by the said rockers and adapted to securely hold the switch-rails closed, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EDWIN J. JENKINS.

Witnesses:

E. C. DUFFY,
O. E. DUFFY.