

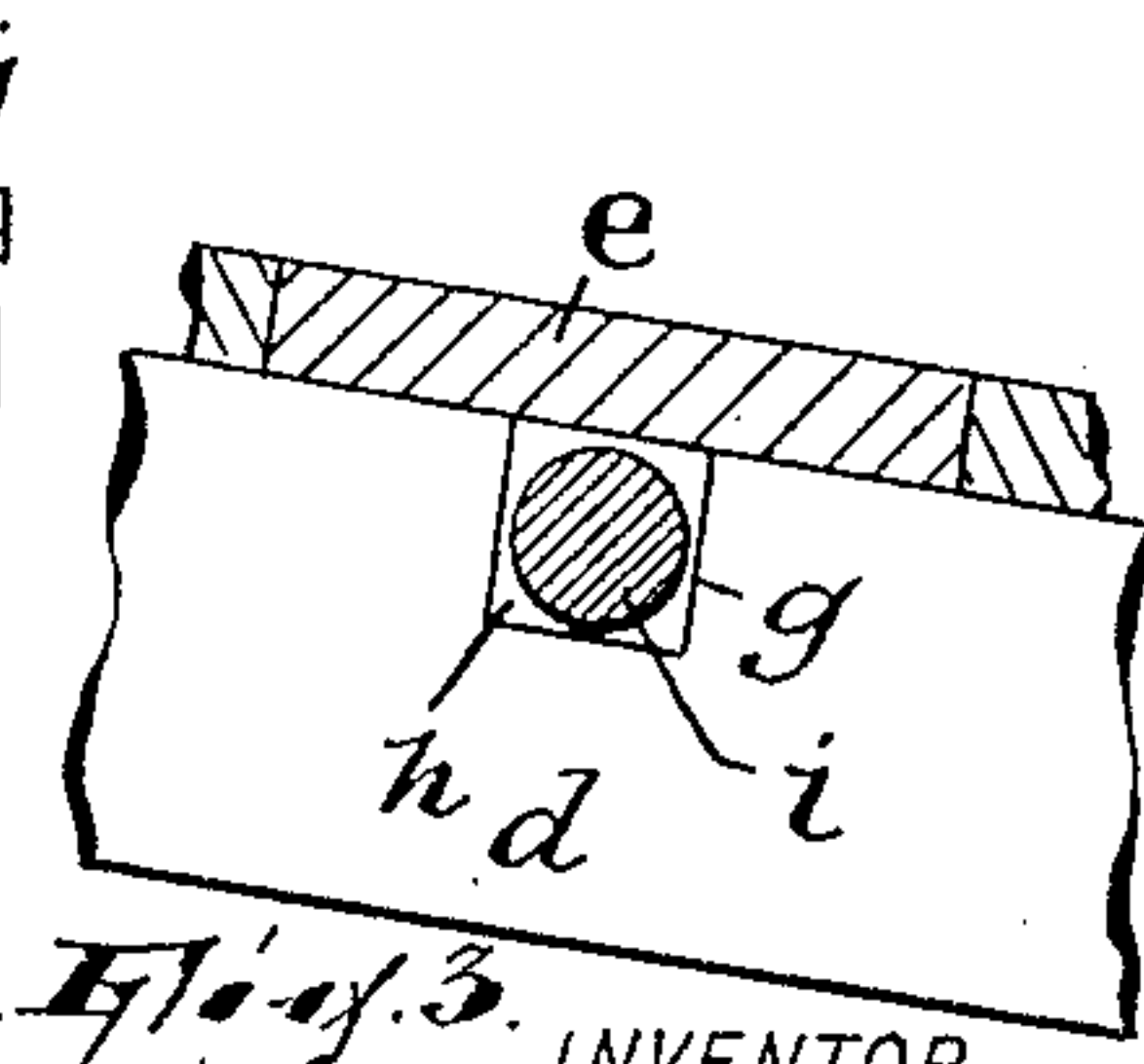
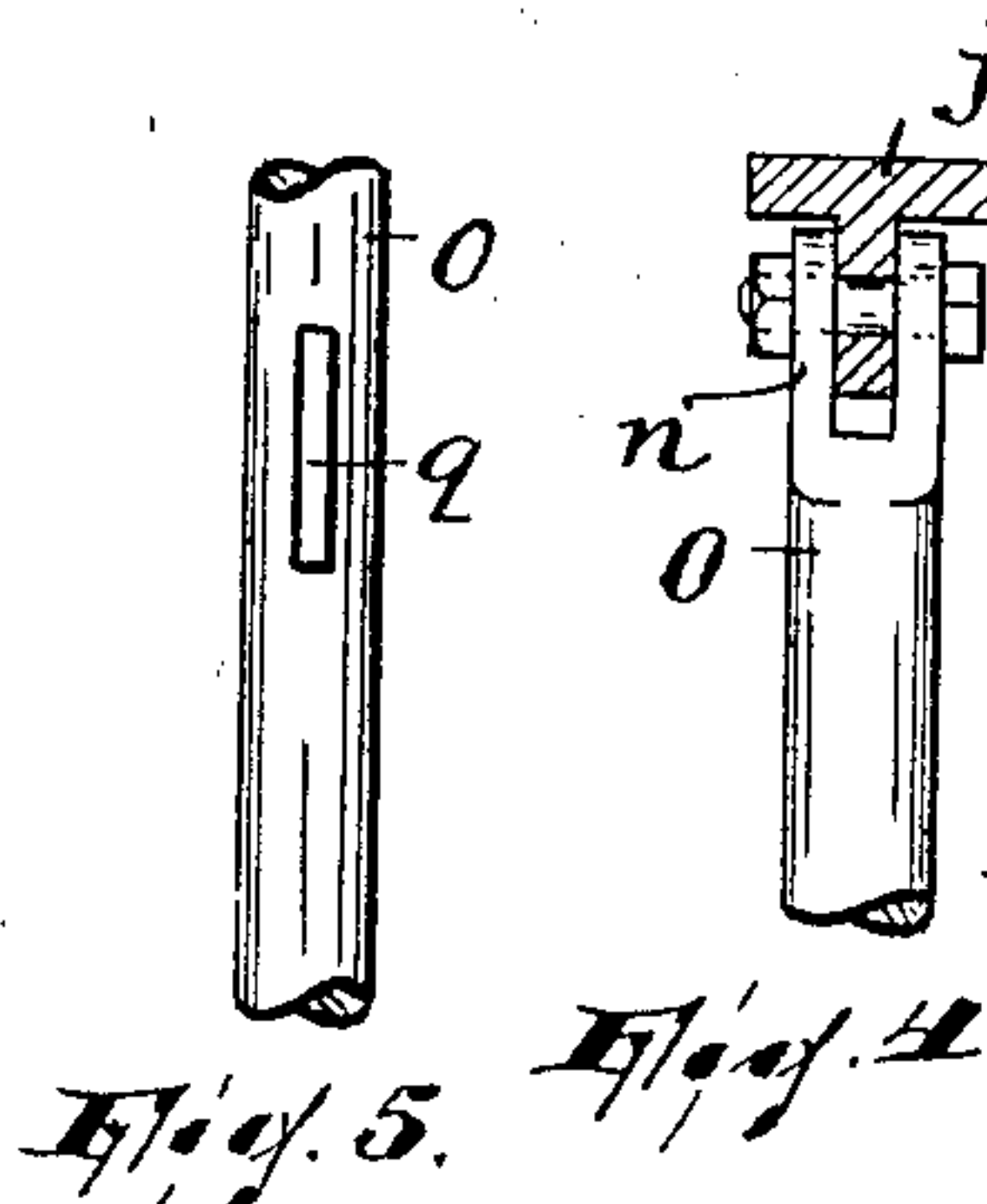
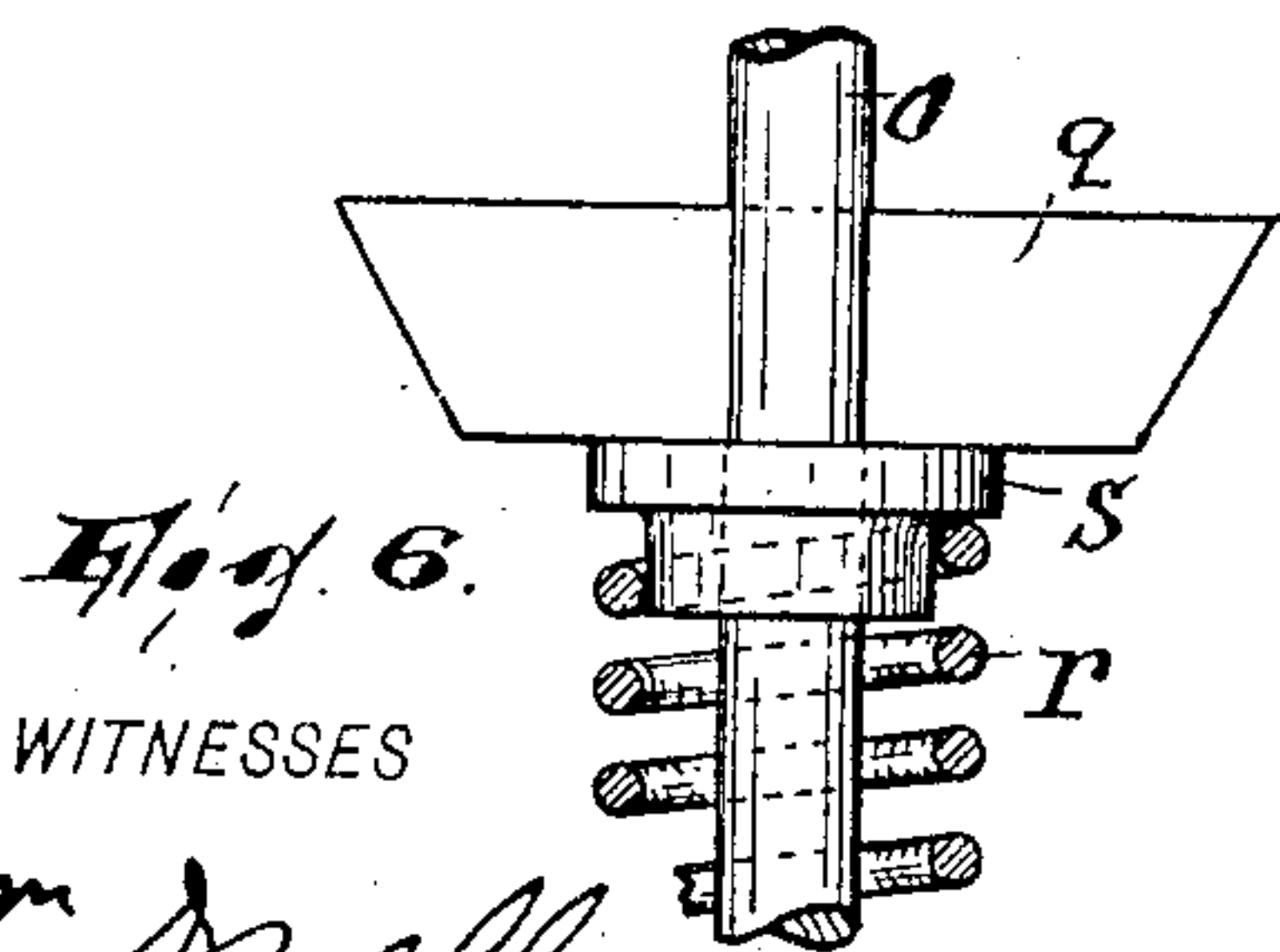
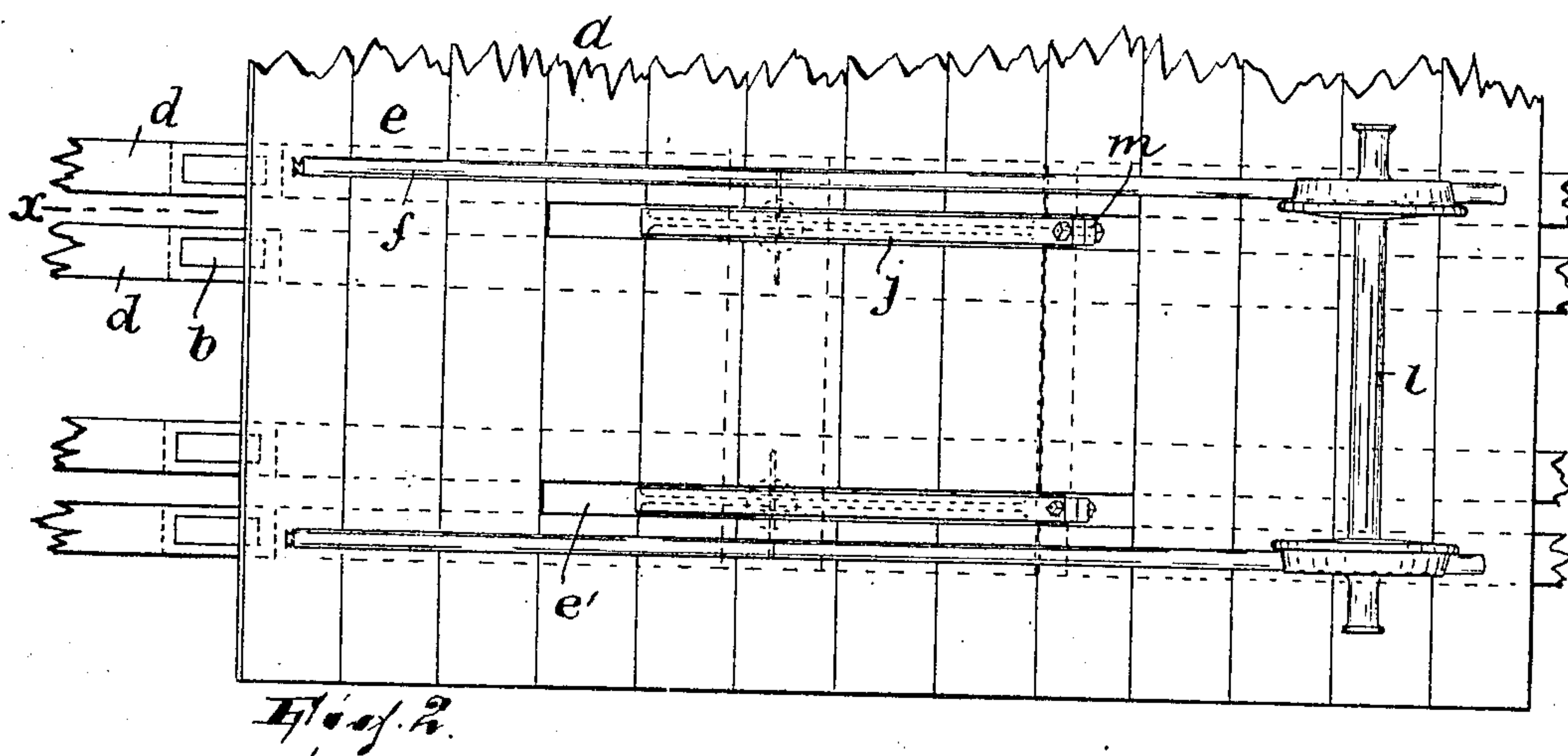
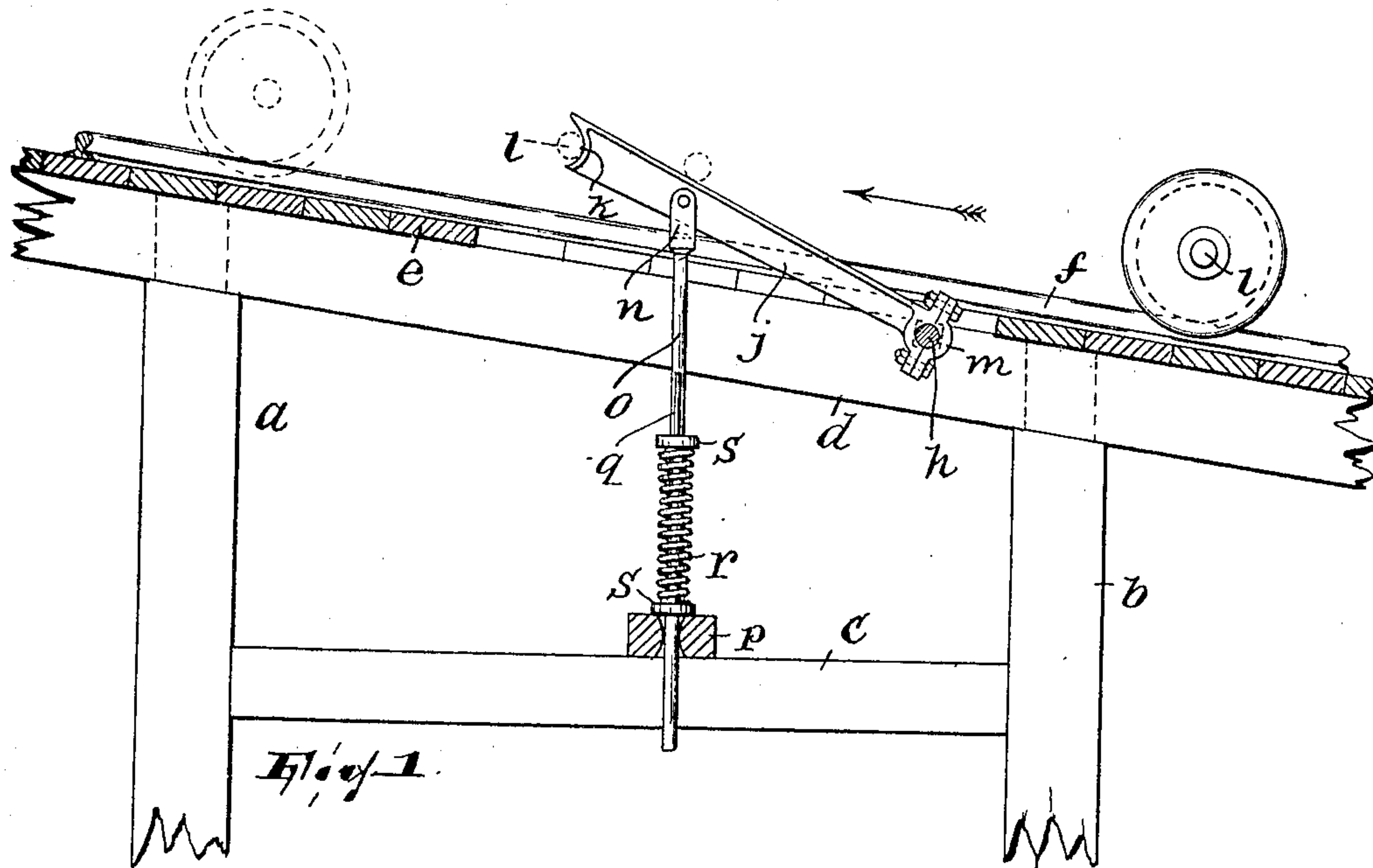
No. 869,648.

PATENTED OCT. 29, 1907.

F. POST.

SAFETY STOP OR CHOCK FOR CAR INCLINES.

APPLICATION FILED AUG. 20, 1907.



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FRANK POST, OF NEWFOUNDLAND, NEW JERSEY.

SAFETY-STOP OR CHOCK FOR CAR-INCLINES.

No. 869,648.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed August 20, 1907. Serial No. 389,357.

To all whom it may concern:

Be it known that I, FRANK POST, a citizen of the United States, residing in Newfoundland, Passaic county, New Jersey, have invented certain new and useful Improvements in Safety-Stops or Chocks for Car-Inclines; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to safety-stops or chocks for preventing backward movement of cars down inclines up which they are hauled for the purpose of discharging their loads at an elevation; and the invention consists in a device of this character which has been devised with particular regard to simplicity of construction, inexpensiveness to manufacture, ability to withstand great shocks, and reliability in operation.

In the accompanying drawing, in which my invention is to be found fully illustrated, Figure 1 is a vertical longitudinal sectional view on the line $x-x$ of Fig. 2; Fig. 2 is a plan view of an incline showing my improved safety-stop or chock applied thereto; Fig. 3 is an enlarged sectional view substantially on line $x-x$ of Fig. 2, the stop or chock proper being removed from the bearing therefor; Fig. 4 is a detail view showing the connection between the stop or chock proper and the plunger of its yielding support; Fig. 5 is a further detail of said plunger; and, Fig. 6 is a detail view further illustrating said yielding support.

In said drawing, a is the incline, the same comprising, say, the uprights b , the braces c , the inclined beams d , the planking e laid on said beams, and the rails f arranged on said planking. For the sake of increasing the strength of the structure, the beams d are arranged in pairs, as shown, each two beams being slightly spaced from each other.

Before laying the planking, a rectangular recess g is cut in each beam d , the said recesses being alined with each other transversely of the beam d . In these recesses are fitted a cross-sectionally rectangular shaft h , which is held in place by the planking and is turned down between the beams d of each pair to form the bearings i . On these bearings are fulcrumed the car-stops or chocks proper j which are formed of iron having T-shaped cross-sections and have their upper ends shaped in the form of a crotch k to receive the axle l of a car and their lower ends provided with the cap-pieces m bolted thereto and thus holding the car-stops or chocks to their bearings, against which they have an endwise thrust.

Pivotally suspended from each car-stop or chock by means of a clevis n formed at its upper end is a plunger

o which is guided at its lower end by a beam p through which it projects and which rests on the braces c ; each plunger is penetrated by a key q which takes against the under sides of the pair of beams d and thus limits the movement upwardly of the car-stop corresponding thereto past a position where the crotched end of the car-stop is alined with the car-axles. The planking e is formed with slots e' which allows the car-stops or chocks to have vertical play therein.

r is a spiral spring which is coiled about each plunger o and bears at its ends against the collars s , one of which takes against the key q and the other of which rests on the beam p ; these springs hold the plungers elevated with their keys bearing against the beams d .

It will be understood that there will in practice be as many of the safety-stops or chocks as the length of the incline or other conditions may require. When a car is drawn up the incline, as its axles pass over the safety-stops or chocks the latter are depressed by the axles, compressing the springs r , and as soon as each axle passes each pair of stops or chocks the latter are immediately raised to their normal positions, *i. e.*, so that the crotches k are directly alined with the car-axles and the keys bear against the beams d . If a car should break away from its hauling means and recede, one of its axles will take against the adjoining pair of car-stops and the downward movement of the car at once checked, the keys q preventing the stops from rising on their bearings.

It will be observed that, besides being adapted promptly to assume the operative position after a car-axle passes, my improved safety-stop has among other advantages the ability to withstand the sudden application of heavy loads owing to the fact that at the instant of checking the backward movement of a car each car-stop has its longitudinal axis approximately in the line of thrust, in which position it is positively maintained by the keys q bearing against the beams d .

I do not wish to be limited to any of the details of construction herein described except as hereinafter specified in the claims, what I claim being,

1. The combination, with an incline, of a car-checking device comprising a fulcrumed car-chock or stop having its car-impact end projecting toward the upper end of the incline, and an elastic support for said car-chock or stop normally maintaining the same with its car-impact end relatively elevated, a part of said support being engageable with the incline to limit the upward movement of said chock or stop, substantially as described.

2. The combination, with an incline, of a car-checking device comprising a car-chock or stop pivotally supported at one end in said incline and having its other end relatively elevated and projecting toward the upper end of the incline and normally retained in that position, and means, comprising a part carried by said chock or stop, for limiting the upward movement of the upper end of said chock or stop, substantially as described.

3. The combination, with an incline, of a car-checking

- device comprising a car-chock or stop pivotally supported at one end in said incline and having its other end relatively elevated and projecting toward the upper end of the incline and normally retained in that position, and means,
- 5 comprising a part pivotally suspended from said chock or stop, for limiting the upward movement of the upper end of said chock or stop, substantially as described.
4. The combination, with an incline, of a car-checking device comprising a car-chock or stop pivotally supported
- 10 at one end in said incline and having its other end relatively elevated and projecting toward the upper end of the incline and normally retained in that position, and means, connected with said chock or stop between its ends, for limiting the upward movement of the upper end of said
- 15 chock or stop, substantially as described.
5. The combination, with an incline, of a car-checking device comprising a car-chock or stop pivotally supported in said incline and having one end projecting toward the upper end of the incline, and means for normally main-
- 20 taining the upper end of said chock or stop relatively elevated comprising a member pivotally connected with said chock or stop and a spring interposed between a portion of the incline and said member, substantially as described.
6. The combination, with an incline having recessed
- 25 beams, of a bearing member set into said beams, and a car-

chock or stop fulcrumed on said bearing member, substantially as described.

7. The combination, with an incline, of a bearing member carried thereby, a car-chock or stop fulcrumed on said bearing member, said car-chock or stop having one end projecting toward the upper end of said incline, a rod pivotally suspended from said chock or stop, a key carried by said rod and engageable with a portion of the incline to limit the movement of said chock or stop on its fulcrum, and elastic means normally maintaining the upper end of

35 said chock or stop in a relatively elevated position, substantially as described.

8. The combination, with an incline, of a car-checking device pivotally supported in said incline and having one end projecting toward the upper end of the incline and being formed as a crotch, said device having its crotched end normally retained in the plane of movement of the car-

40 axes, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 19th day of August 1907.

FRANK POST.

Witnesses:

WM. D. BELL,

JOHN W. STEWARD.