

C. Foster,

Railroad Switch.

No 24,384,

Patented June 14, 1859.

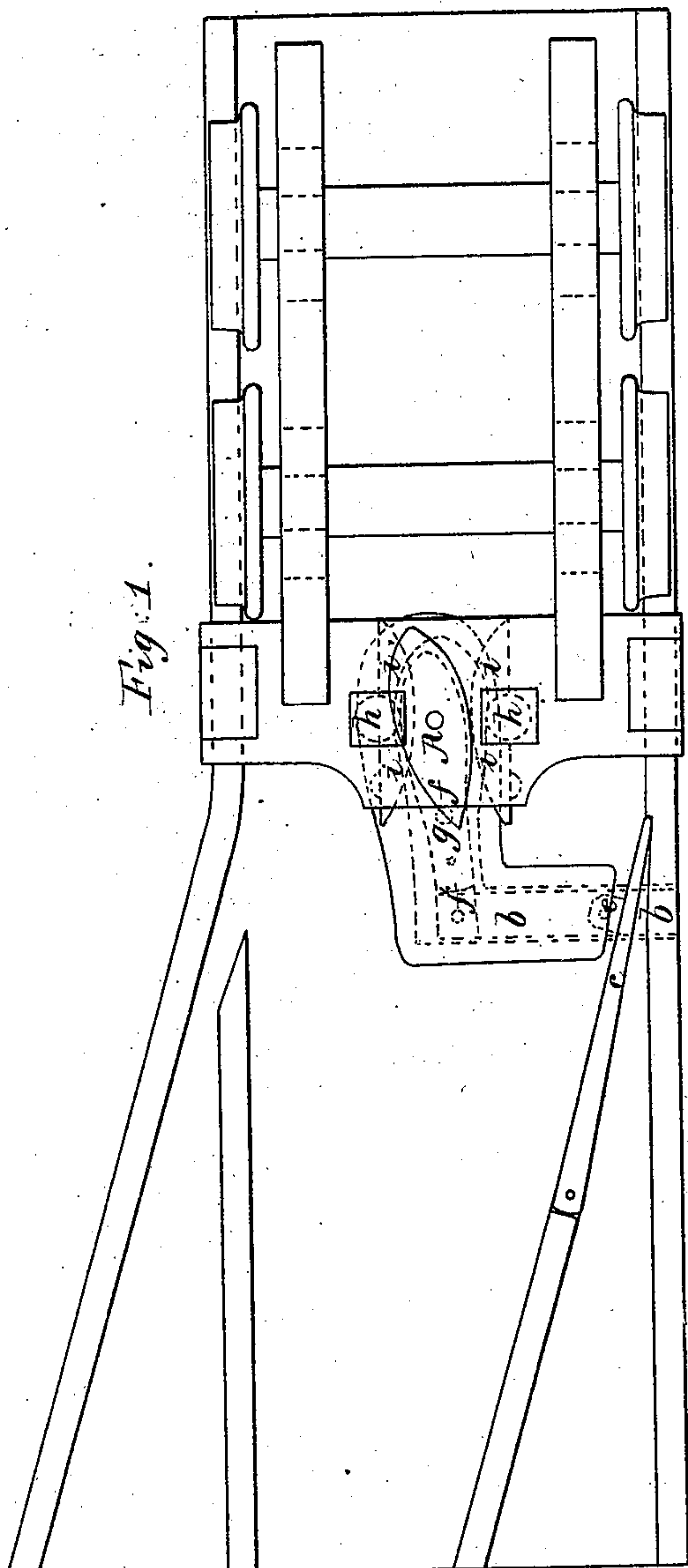


Fig. 3.

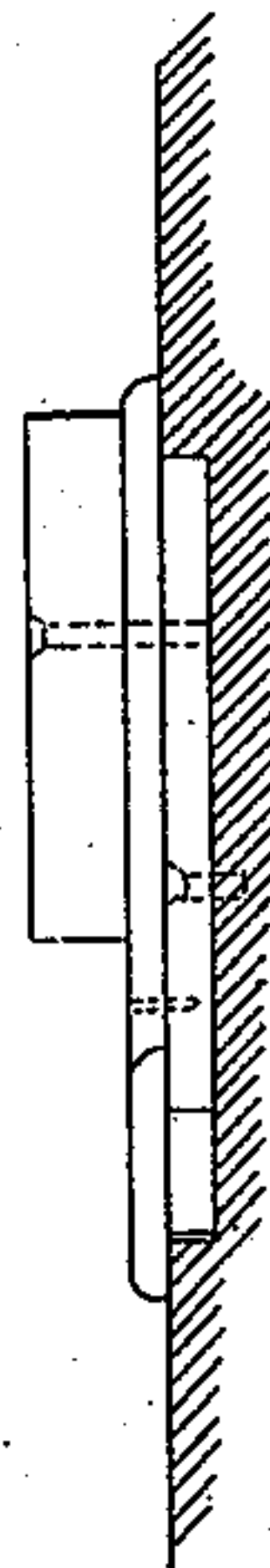
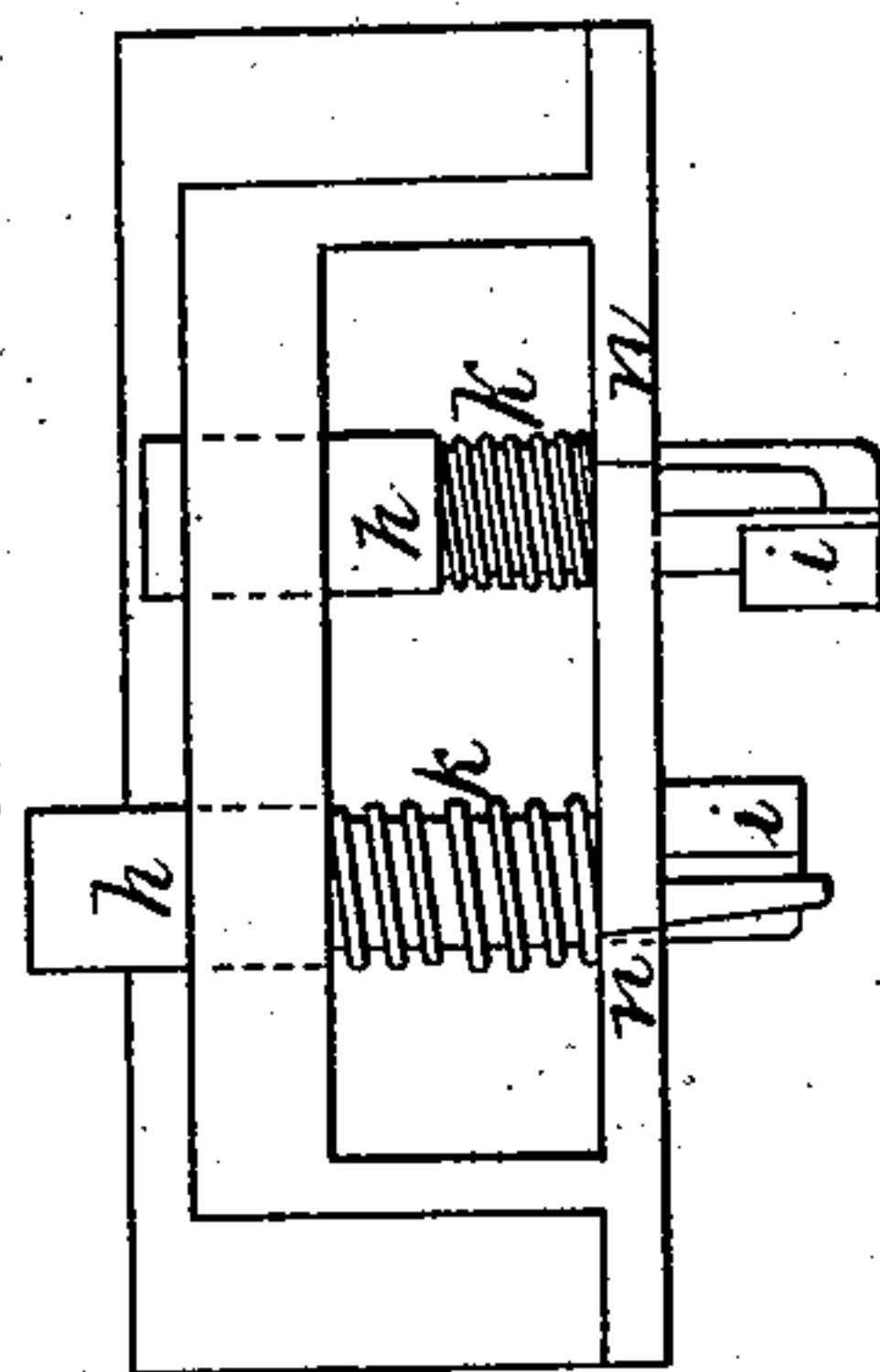


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES FOSTER, OF ELDRIDGES HILL, NEW JERSEY.

OPERATING SWITCHES ON RAILROADS.

Specification of Letters Patent No. 24,384, dated June 14, 1859.

To all whom it may concern:

Be it known that I, CHARLES FOSTER, of Eldridges Hill, in Salem county and State of New Jersey, have invented a new and
5 Improved Mode of Operating Switches, and do hereby declare the following to be a full and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in
10 which—

Figure 1 is a plan of the car and track. Fig. 2, a front view of a car having my improvement attached. Fig. 3 is a vertical section of the cam A shown in Fig. 1.

15 My improvement consists of a sliding bar *b b*. To one end of this bar the switch rail *c* is attached by means of a short lug *e*. The other end of the bar *b b* is attached to a lever *l l* moving upon a pivot *g*. Over the
20 free end of this lever *l l* a cam A is attached. This cam is of an elliptical shape and is so placed as to be operated upon by cams upon the car to be hereafter described. This cam should not be much higher than
25 the track. In practice the cam A and the lever *l l* may be cast in one piece. A cover for the recess in which the bar and lever work may also be cast upon the lower edge of this cam.

30 Upon the front of the car are two bars *h h*, sliding in a vertical direction. Upon their lower ends they carry two cams *i i* corresponding to the cam A. The cams *i i* on their inner side are elliptical in order to correspond with the surface of the cam A.
35 These cams *i i*, by means of elliptical or

spiral springs attached to the bars *h h* and some permanent part of the car, are kept raised to such a height that they will pass over the cam A.

40 When the car approaches the switch one of the cams *i i* being pressed downward presses upon one side of the cam A thus pushing it over in the opposite direction and by this means acting upon the lever *l l*
45 which in its turn moves the switch either one way or the other according as one or the other of the cams *i i* has been pushed downward.

In order to attach my improvement to 50 cars a piece of timber or other material *n n* may be attached beneath the platform through which the upright bars will slide. The springs *k k* being placed between this piece and a slight projection on the upper
55 part of the bars *h h*. The cams *i i* and the cam A are made elliptical in order that there may be no sudden shock when they come in contact.

Having thus described my improvement 60 what I claim as my invention and desire to secure by Letters Patent is—

The mode of operating switches by means of movable cams *i i* or their equivalent on the car, acting on a cam A or its equivalent
65 connected by means of levers with the switch rail *c* substantially as above described.

CHAS. FOSTER.

Witnesses:

J. G. MINICHILD,
JAMES J. CLARK.