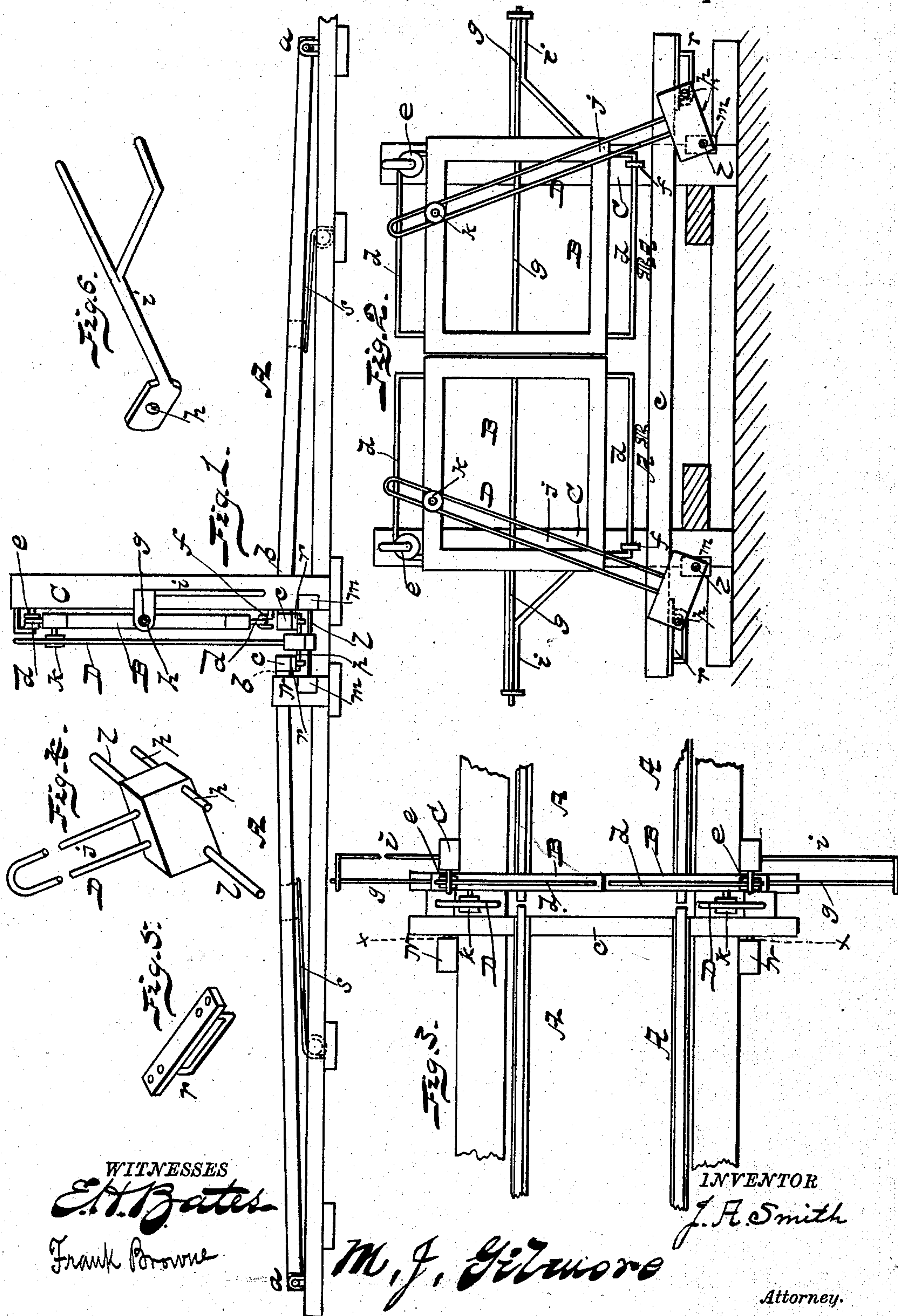


J. A. SMITH.
RAILROAD GATE.

Patented Sept. 8, 1885.



UNITED STATES PATENT OFFICE.

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RAILROAD-GATE.

SPECIFICATION forming part of Letters Patent No. 325,874, dated September 8, 1885.

Application filed April 13, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. SMITH, a citizen of the United States, residing at St. Paul, in the county of Madison and State of Arkansas, have invented certain new and useful Improvements in Automatic Gates; 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.

This invention has relation to improvements in railroad-gates; and it consists in the construction and novel arrangement of devices, as hereinafter fully explained, and particularly pointed out in the appended claim.

The annexed drawings, to which reference is made, fully illustrate my invention, in which Figure 1 represents a side view of my device. Fig. 2 is a cross-sectional view of the same, taken on line *x x*, Fig. 3. Fig. 3 is a plan view, and Figs. 4, 5, and 6 are detail views.

Referring by letter to the accompanying drawings, A designates the portion of the rails of a railroad-track nearest the gate. These rails are hinged on opposite sides of the gate, as at *a*, while the ends *b* are free to move vertically, and are slightly inclined from the hinge portion to the gate, as shown in the drawings. The ends *b* of the rail are provided with transverse bars or ties *c*, which connect the two rails and project on each side of the same sufficiently far to operate in connection with parts presently explained.

B B represent the gate, which is composed of two sections constructed alike, and each provided both on top and bottom with a rod, *d*. The upper rods travel upon and are supported by the pulleys or rollers *e*, which are secured to the side of the posts C, situated on each side of the track. The lower rods are guided in their lateral movement by guide hooks or staples *f*, secured to said posts. These sections of the gate are further provided with rods *g* about their middle, which project laterally beyond the track and pass

through perforations *h* in the ends of brackets *i*, secured to the posts, thus guiding and supporting the gates in position.

D D represent vertical levers, which are slotted, as at *j*, in which slots work pulleys *k*, secured to the sections of the gate. These levers are constructed alike. At the lower end of each lever is secured a transverse rod, *l*, which is seated in bearings *m*, secured to the post C and to a short post, N, and a second transverse rod, *p*, on the lower end of the lever has its end bearings in slotted plates *r*, secured to the under side of the transverse ties of the rail, as shown in the drawings.

The operation of the gate is as follows: When a train of cars reaches the rail-section on either side of the gate, (prior to which the gate is closed,) the weight of said cars depresses said rail-section, thus forcing the transverse bars or ties downwardly, at the same time throwing the levers D laterally, and carrying therewith the gate-sections, to each side of the track and permitting the train to pass through. When said train leaves the hinged portion of the track on the opposite side of said gate, the hinged sections resume their inclined or normal position, thus, through the medium of the transverse ties and pivoted levers D, closing said gate and preventing persons or animals from entering.

This gate is designed to be used at railroad-crossings, or where the rail enters tunnels, farms, bridges, and, in fact, wherever such a guard may be necessary. It may be also used as a farm-gate, the weight of a horse or wagon serving to open the gate, and for a small or passenger gate, the weight of a person serving the same purpose. In order to raise the inclined ends of the rail-sections, I usually provide a spring, *s*, under each section, which accomplishes this result.

A gate constructed as herein described is simple in operation, durable, and cheap to manufacture.

I am aware that prior to my invention patents were granted by the United States, No,

114,940 and No. 235,489, for similar gates; hence I do not claim, broadly, an automatic gate; but,

Having described my invention, what I
5 claim, and desire to secure by Letters Patent, is—

In an automatic gate, the combination of the slotted levers D, provided at their lower ends with the rods *l p*, the gate-sections hav-
10 ing the upper and lower guide-rods, *d*, the posts C, provided with the pulleys *e* and hooks or staples *f*, the brackets *i*, adapted to

receive the rod *g* on the gate-sections, and the rails hinged at *a* and provided with the cross-ties *c*, having the slotted bearings *r* to engage 15 the rods of the levers D, the whole arranged as shown, described, and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN ALLEN SMITH.

Witnesses:

ELIJAH DRAKE, Jr.,
HARVEY C. GUTTERS.