

C. H. KAUFMANN.
Draw-Bridge Gates.

No. 151,985.

Fig: 1.

Patented June 16, 1874.

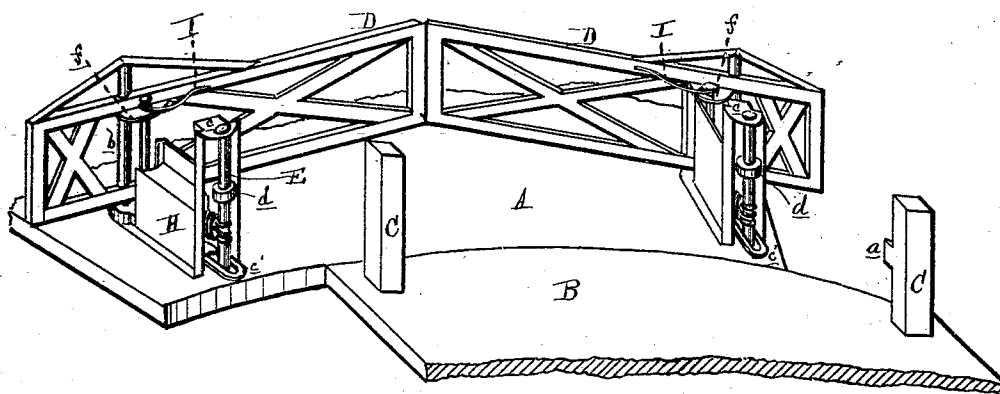


Fig: 2.

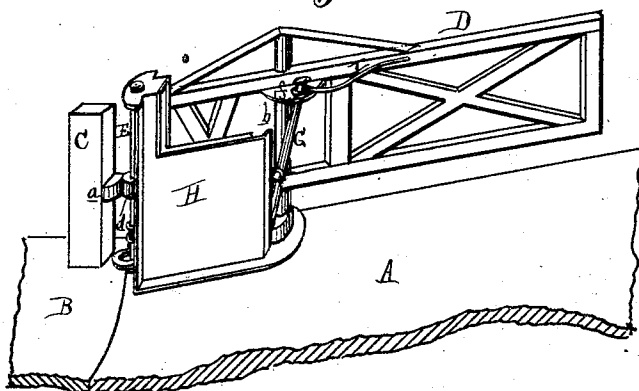
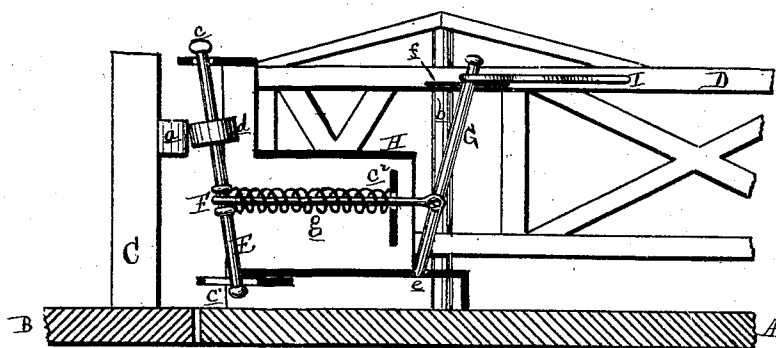


Fig: 3.



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CARL H. KAUFMANN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DRAW-BRIDGE GATES.

Specification forming part of Letters Patent No. **151,985**, dated June 16, 1874; application filed May 18, 1874.

To all whom it may concern:

Be it known that I, CARL H. KAUFMANN, of Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Gates for Swing-Bridges, of which the following is a specification:

The object of my invention is to provide the approach of or to the draw-span of a bridge with a pair of gates, to be operated by the draw-span in such a manner as that they will open when the draw is closed, and will close as soon as the draw-span has commenced to swing open, thereby preventing accidents and loss of life, which are liable to occur at open approaches. The invention consists in the peculiar construction of the mechanism for swinging the gates through the operation of two cams on the end of the draw span, as more fully hereinafter set forth.

Figure 1 is a perspective of a portion of a draw-span partly swung, and of the approach thereto, with the guard-gates closed. Fig. 2 is a perspective view, showing one gate open and the draw closed. Fig. 3 is a sectional elevation of Fig. 2.

In the drawing, A represents the approach, and B the draw, of a bridge, at each end of which a post, C, at the end of the guard-rail, is erected, at each side, each post having a cam, *a*, on its outer face. D D are two gates, each pivoted by its post *b* in a suitable bearing.

The operative mechanism of both gates being alike a description of one will suffice. E is a shaft, pivoted and suspended at its upper end in a bracket, *c*, at the top of a post, on the approach. Its lower end plays in a slot in a

bracket, *c*¹, near the foot of the post. *d* is a roller, secured on the shaft at the plane of the cam *a* on the draw-span, which cam, when the bridge is closed, presses back the lower end of the shaft E. Below the roller a rod, F, is hooked at one end around the shaft E, extending back horizontally through a guide-bracket, *c*², and has its rear end hooked to a lever, G, whose lower end is stepped in a socket, *e*, while its upper is journaled in a plate, *f*, on the inner side of the top rail of the gate, near its post. When the shaft E is pressed back by the closing of the bridge it throws open the gate through the action of the rod F and lever G. A spring, *g*, spirally coiled on the rod F, between the shaft E and bracket *c*², presses forward the former and closes the gate when the draw is swung so that its cam clears the roller. The brackets, spring, and principal working parts are inclosed in a casing, H. A torsion-spring, I, may be placed on the gate and lever G to assist the spiral spring in closing the gate, if desired.

What I claim as my invention, and desire to secure by Letters Patent, is—

The shafts E, mounted in the brackets *c*¹, and provided with the rollers *d*, the rods F, brackets *c*², levers G, sockets *e*, plates *f*, and springs *g*, constructed and arranged with relation to the cams *a* on the draw-span of a bridge to operate the gates D, substantially as described.

CARL H. KAUFMANN.

Witnesses:

WM. H. LOTZ,
HERMAN BISCHOFF.