

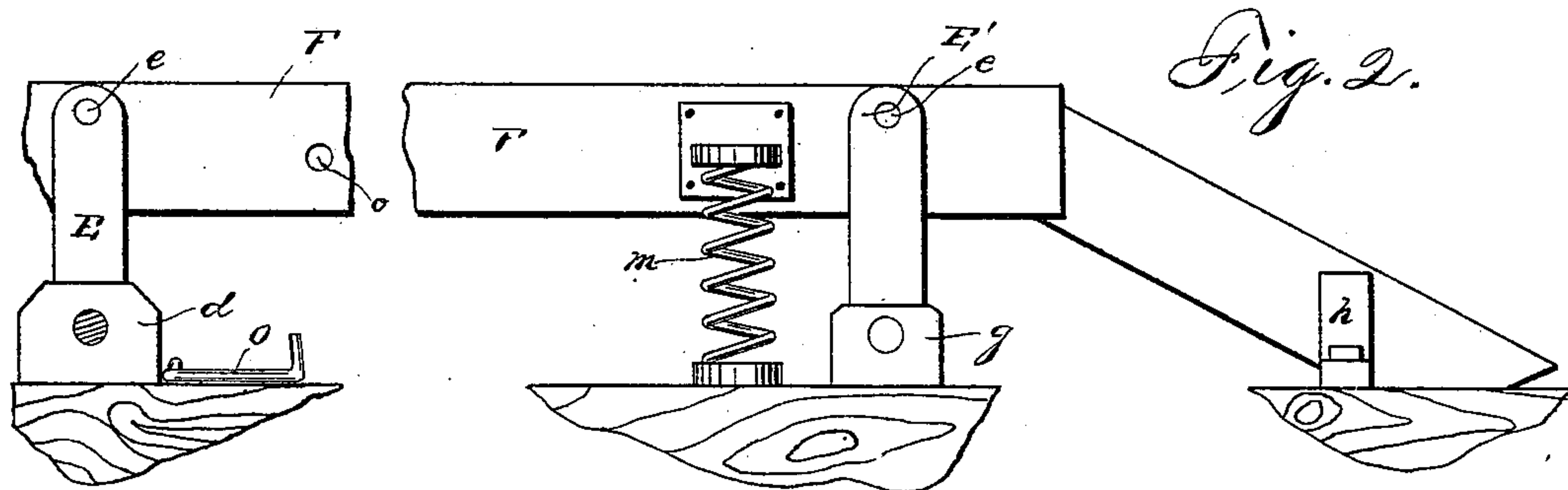
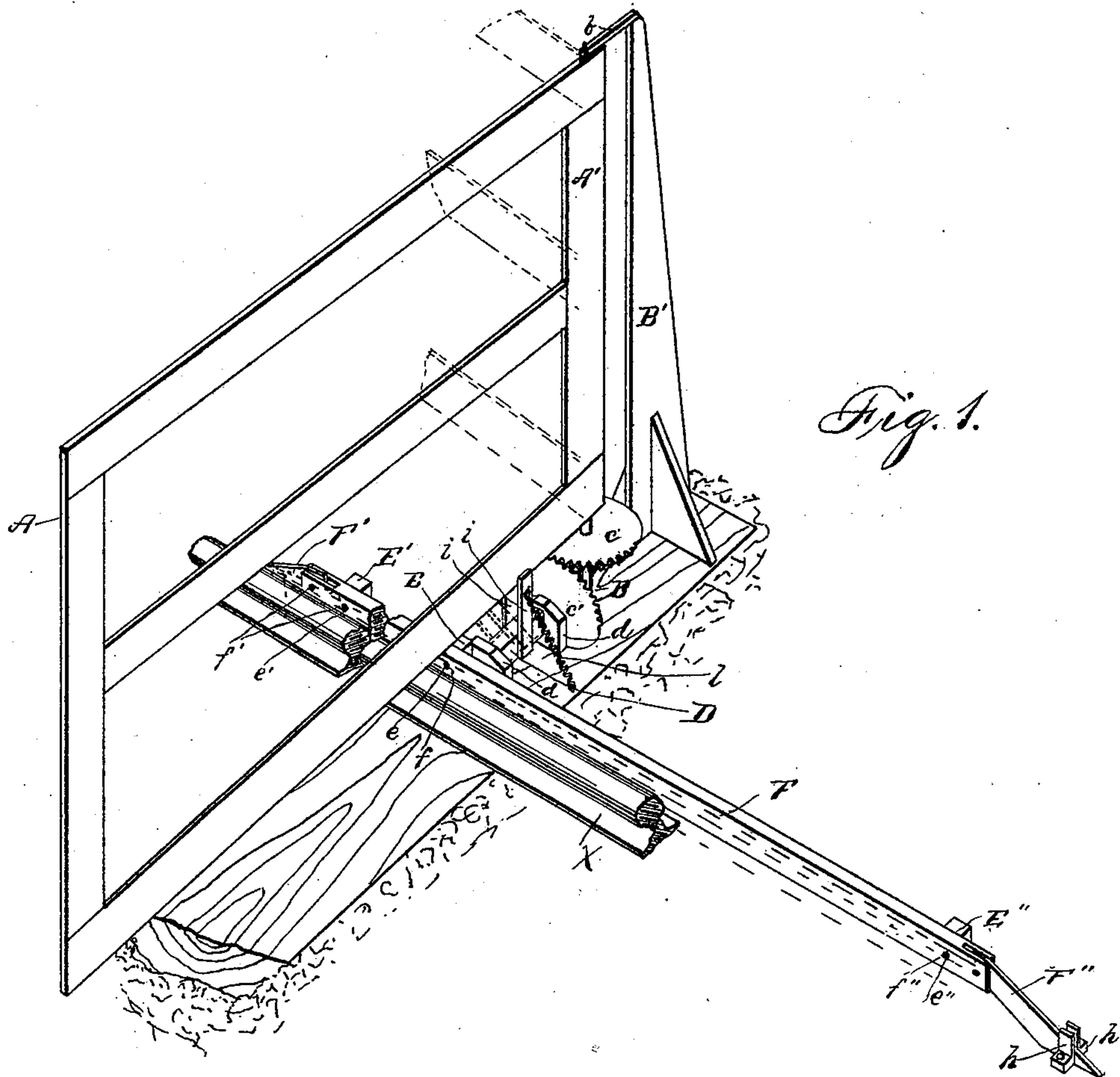
**No. 614,011.**

**Patented Nov. 8, 1898.**

**H. E. KOCH.**  
**SWINGING GATE.**

(Application filed Mar. 7, 1898.)

(No Model.)



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

HENRY E. KOCH, OF HARTINGTON, NEBRASKA.

## SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 614,011, dated November 8, 1898.

Application filed March 7, 1898. Serial No. 672,931. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY E. KOCH, a citizen of the United States, residing at Hartington, in the county of Cedar and State of Nebraska, have invented certain new and useful Improvements in Swinging Gates; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to swinging gates, and is especially designed for use on railroad-ways, but is readily adapted, with slight modifications, for use as a gate for wagons and pedestrians. The gate is opened by the pressure of an approaching train, wagon, or pedestrian and closes automatically.

The accompanying drawings illustrate the invention, in which—

Figure 1 is a perspective view of one section of the invention adapted to railroad uses, the dotted lines indicating its position when opened. Fig. 2 is an enlarged fragmentary detail of the tread and some of its connections.

The gate may have a single swinging panel extending entirely across the roadway, but, except for yard-gates, is preferably made with two panels similarly mounted on opposite sides of the way, their edges meeting when closed.

Like letters denote corresponding parts in the different views.

The letter A indicates the gate-panel, of ordinary construction. Its main post A' stands pivotally on a block B and is pivotally connected to a bar b, one end of which is fixed to a vertical stay-post B'. On the base of the main post is a fixed horizontal bevel cog-wheel c, meshing into a bevel cog-wheel c', fixed on a rocking shaft D. Said shaft is journaled in blocks d d on the road-tie.

E is the crank of the shaft D, having the horizontal pin e, which enters the hole f in the upper edge of tread-plate F. Other holes f' f'' in said tread are provided to receive the pins of other cranks E' E'', journaled in blocks g g, all of said cranks being uniform

in construction and movement. The tread-plate is held in vertical position by the crank-pins e e' e'' against the outer side of the rail X and normally projects above said rail. The jointed extensions F' F'' of the tread incline downward and rest in the forks h h. Short parallel bars i i, fixed on the shaft D, hold the gate normally closed, but being inclined as the shaft turns allows the gate to swing free. Draw-springs l l connect the bars i i with an adjacent tie, and push-springs m m connect the tread F with the ties. To hold the gate open, a hook O is provided on a tie, which is adapted to engage a hole o in the tread F and so prevent it from rising. The said hook is inserted in and removed from the tread by hand.

When a car approaches from either direction, its wheel runs upon the tread F beside the track and pushing it slightly forward and depressing it causes the crank to turn and the gate to swing open in the direction the train is moving. After the train has passed the springs l l draw back the bars i i, the springs m m push up the tread, and the gate is closed. The auxiliary cranks steady the tread and retain it in horizontal position.

What I claim is—

1. In a swinging gate operated by a depressible tread through a rocking shaft geared to the gate-post, a hook adapted to engage a hole in said tread, for the purpose specified.

2. In a swinging gate whose main post is geared to a rocking shaft, a crank on said shaft whose pin engages a depressible tread along the outer side of the track-rail; auxiliary steadying-crank connected to the tread; springs to lift the tread when pressure is removed; lock-bars on said shaft between the main post and crank; coil-spring suitably anchored to draw said bars into vertical position; extensions at each end of the tread, and a hook adapted to engage a hole in the tread to hold the gate open as herein described.

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

HENRY E. KOCH.

Witnesses:

HENRY T. BRIGHT,  
J. ROSS COLHOUN.